From wb0eq at yahoo.com Thu Oct 1 17:21:30 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Thu, 1 Oct 2015 21:21:30 +0000 (UTC)
Subject: [BoatAnchors] A Vision from the Past
Message-ID: <1403947021.3980052.1443734490791.JavaMail.yahoo@mail.yahoo.com>

When I was just a kid, I spent 4 years in the U.S. Air Force, three of them in Germany after tech school, ready to nuke the Warsaw pact guys if the ever got too frisky.

I was an avionics technician specializing in Automatic Flight Controls (you might know that as "autopilot). My experience was with the F-105D fighter-bomber.

Its autopilot was incredibly complex, it was designed to do so many things.

In the electronics shop, I had a huge test set, over 6 feet wide, it even included a hydraulic pump for testing the servo actuators. It intimidated many but I learned to play it like a keyboard.

Right smack in the middle of this test set was a portable voltmeter. It was Navy grey in color, measured 12x6x6" and weighed about 8 lb. While used for all the military services, it had a Navy contract number on it.

It was also beefier than most, I'm sure because it had to survive the Navy's shock test (MIL-S-901_). The Air Force like them so we had them, possible by the 1000's.

It was an AC voltmeter, measured 0.005 to 500 volts fs AC. Made by Daven Electronics, nomenclature ME-6D/U.
Had a curious meter readout--the scale was proportional to the logarithm of the input signal! So lthe dB scale is itself linear. And, the needle rested below the left hand end of the scales. Had binding posts on front along with a red foil sticker warning: "Grounded case, make no attempt to measure line voltage." OK.

Sticker on top sez "August 1965"--holy cow, just when I was in the AF!

Well, here I am, 50 years later, at a hamfest in Spokane WA, and what do I see on a table but, can it be--you guessed it. An ME-6D/U, in quite nice shape, not even dirty. It went home with me for the princely sum of $5, otherwise it would have found a dumpster.

I had to look for a while to find paperwork for it but then, on, of all places, elektrotanya.com That's a laugh, from Russia, our old enemy, again. How ironic.

Have not calibrated it yet but working FB after a slow cook on a Variac.

Have come across quite a few sensitive AC Voltmeters that were noisy as heck. Had an HP (# ??) used a string of 6CB6's, watch the meter bounce and bounce and bounce on a shorted input. Never did fix that, suspect aluminum vs. other materials chassis corrosion.

This one is a stable as a rock on shorted input even when case is tapped. I assume these units were used shipboard and we know about shipboard vibration--it's not trivial.

Circuit uses one 5879 (don't know anything about that tube) & 2@ 6AH6's, all as voltage amps. 6AL5 as full wave rectifier to drive the meter, yes, is run at reduced filament voltage to fight contact potential. Nice circuit, uses AC feedback to improve linearity and stability. Also, DC feedback to avoid meter banging! (PS I do the latter for my metered testing friends using a pair of oppositely wired Ge or Si diodes across the meter. Highly recommended by me. Save a meter! Wear a seat belt, too.)

Nasty selenium rectifier in there for B+, MIL-spec, potted. Probably ought to replace it but need to consider its internal voltage drop due to self impedance for replacement.

B+ is regulated via an 0B2.

And there's an oddball (well, I haven't ever seen one) "current regulator RT-101 2A12" wired in series with the power transformer's 120 V primary. There's also a 10W adjustable slider resistor across the transformer's primary as a shunt, to help decide how the AC primary current is going to divide between transformer and shunt resistor.

Now this does seem to be the kind of current regulator sometimes seen (e.g. 4H4) in e.g. a National NC-303 receiver.

According to the manual this "Regulator Ballast Lamp RT-101" consists of two resistive elements wired in parallel. One is always active (in circuit). The other is driven by a bi-metallic strip that puts this 2nd resistive element in series with the first one. This drops the line voltage applied to the transformer by about 20 volts.

After about 20 seconds, the bi-metallic switch switches the 2nd element out of the circuit, thus applying more voltage to the primary (first element stays connected). They write it reduces turn-on AC surge currents.

It's not explained if these resistances are linear or not. I think they are no as the text talks about "full regulated current".

Now under battle conditions, if this "ballast lamp' should break, they show a quick way of bypassing it! No, it doesn't say to shoot or blow the voltmeter up (like the Super Pro manual), as it'll work satisfactory without it.

Unit has lots of adjustments, that's good in my book, better chance of getting all properly calibrated even after 50 years.

If you want to see schematic it's downloadable at: elektrotanya.com

So now I'll have my ol' electronic buddy from half a century ago staring at me again! Mount it on a wall like a trophy?

Thanks for indulging me my trip down sentimental lane.

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

From gumbear at pacbell.net Thu Oct 1 18:12:03 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 1 Oct 2015 15:12:03 -0700
Subject: [BoatAnchors] A Vision from the Past
In-Reply-To: <1403947021.3980052.1443734490791.JavaMail.yahoo@mail.yahoo.com>
References: <1403947021.3980052.1443734490791.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <882A7AB685EA4B2B845DF2BF417A277A@KB6NAX>

> ....Right smack in the middle of this test set was a portable
> voltmeter. ....

John, I ran into one of those back when I was in the Navy fixing ARC-27's at MCAS Kaneohe, HI. I couldn't quite decide if I liked a linear voltage scale or a linear dB scale then. But for us simple techs we mostly worked with volts so that decided that.

I eventually restored a couple of HP400D and one HP400H AC voltmeters. They are damn nice to use once you flush the bugs out. First to replace is, you guessed it, the black ugly paper caps, most of which are blocker between the many amplifier stages. Next liberal application of contact cleaner and lube on the rotary switch with many rotations. Then restoring reliable tube socket contacting by application of contact cleaner and repeated withdrawal and insertion of the tubes. Then outing of flakey 6CB6's by tap-tap-tap. By then a burn-in is in order. When the volt meter finally ends up working reasonably well but suffers from jerky pointer syndrome go after corroded ground terminals by flexing or twisting them while watching the meter if the problem is not corrected by tube substitution. If all of that doesn't bring things to the ultimate the meter is capable of renew your membership in the Hair Club.

I still have my 400D but it would provide more service as a door stop since I do most of my AC measuring with HP 334 and a 333 harmonic distortion analyzers. Finally, HP also made a 400 series meter with a linear dB scale but I've never had one in hand.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From garygarlic at earthlink.net Thu Oct 1 19:44:09 2015
From: garygarlic at earthlink.net (Gary Woods)
Date: Thu, 01 Oct 2015 19:44:09 -0400
Subject: [BoatAnchors] Oven -really, really cheap
Message-ID: <22gr0b50pbb1ah2e0h8ivng6qn1doi8tvh@4ax.com>

For the price of a small flat-rate box:

1 each G.E. "Crystal Thermocell" containing a gen-u-wine 101.5625Kc (none of them Hertz here!) crystal. nice chrome can, octal base, G.E.'s Catalog # 32C401G-77C. I suspect it was used with a primodorial phase modulator to multiply up to some broadcast frequency, but I couldn't come up with a multiplication factor that yielded anything likely. Considering that it likely came from an SK who worked at the local channel 6, I tried 87.75Mc without success.
If anybody can use it, it's yours for the price of a small USPS flat-rate box.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

From gsantacanav at gmail.com Thu Oct 1 19:50:23 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Thu, 1 Oct 2015 19:50:23 -0400
Subject: [BoatAnchors] FW: KY5Q Acquired R-390A
In-Reply-To: <BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
References: <557463389-1443584517-

cardhu_decombobulator_blackberry.rim.net-1176666638-@b4.c2.bise6.blackberry>
<BAY403-EAS316AFF47EA0D6D988164CC6B94D0@phx.gbl>
<BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
Message-ID: <CAO1yix0V4UkRgrgN7-BwTWjSqkQ4TMk+3yYAfT8abtOUFEmOHw@mail.gmail.com>

Back in the late 90s I remember discussing a list of capacitors recommended for replacement in the R390A. It may still be around in some old postings. Nonetheless, C553 was an obligatory replacement. In those times there was this thing about using orange drop caps in place of C553. The orange drop had to be fitted into the cramped space of the IF subchassis. I guess there are better alternatives now. Those were the good ol days. R390A and nonAs were plentiful. I went through 6 As and 2 non As. Only kept my old R392....

Best 73s

Guido Santacana KP4FAR

On Wed, Sep 30, 2015 at 6:40 PM, JAMES HANLON via BoatAnchors < boatanchors at theporch.com> wrote:

> Bill,
>
> I am forwarding your request below to the Boatanchors Reflector. There are a number of folks there who are experienced R390A mechanics and who should be able to offer you some well-informed advice. I understand you've been advised to start by replacing all of the capacitors. I suggest you hold off on that until you've heard from several knowledgeable R390a owners. My general experience in restoring more than 40 Communications receivers dating back as far as 1933 is that about 90% of the time I do not see evidence of wholesale, end-of-life behavior with all of the caps. There are some particular, well-known types of caps such as molded "black-beauties" and the molded caps found in BC348 receivers that should be replaced. But my general experience says just to replace the ones that are leaky or shorted and leave the others alone.
>
> Jim Hanlon, W8KGI
>
> From: Bill Ripley <bill.ripley at ces-noam.com> Date: Wed, 30 Sep 2015 03:18:28 +0000To: jpanthes at comcast.net<jpanthes at comcast.net>; James Hanlon<knjhanlon at msn.com>Subject: KY5Q Acquired R-390A I bought an R-390A last week, Seems to be in good condition and not badly abused. I have not fired it up yet, but the guy that I bought it from told me that he turned it on and listened to WWV in a few spots and all seemed to be OK. This is my first foray into restoring anything this good and wondered if you guys had any opinions. I?m thinking I should invest in some cleaners (like De-Oxit), but I?d love to have some advice as to which ones are good, and any pitfalls. After I get the thing running well (whatever that means), I?ve noticed a mod that looked pretty good from Treetop Circuits that added

> a SSB detector on a PCB that mounts on the back and installs very
> non-invasively. http://www.treetopcircuits.com/docs/SB390Manual.pdf
> Thoughts? Bill RipleyCreative Electronic Systems - North America(505)
> 503-7491 (Office)(505) 980-8353 (Cell)Bill.Ripley at CES-NoAm.com
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From wb3fau55 at neo.rr.com Fri Oct 2 06:04:32 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Fri, 2 Oct 2015 6:04:32 -0400
Subject: [BoatAnchors] FW: KY5Q Acquired R-390A
In-Reply-To: <CAO1yix0V4UkRgrgN7-BwTWjSqkQ4TMk+3yYAfT8abtOUFEmOHw@mail.gmail.com>
Message-ID: <20151002100433.S0XLE.157575.root@cdptpa-web01>

Guys, all kinds of strange problems with these, depending on how stored, and who
the maker was. A Teledyne model here, had a broken band change shaft. Could
have been avoided by proper lube of the drive and gears. Broken shaft clamps
were another interesting problem, caused mostly by improper annealing of the
clamps-[non- Collins]. Most other problems already mentioned by others. Cool
radios when fixed. Pretty amazing performance when all repairs and maint. done
correctly. Need not be Collins or EAC to be an outstanding performer.
  Anyone have a spare audio chassis for an R-390A? or just a chassis with
connectors? A true BA worth your time to fix. 73s Russ.
---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
> Back in the late 90s I remember discussing a list of capacitors recommended
for replacement in the R390A. It may still be around in some old postings.
Nonetheless, C553 was an obligatory replacement. In those times there was
this thing about using orange drop caps in place of C553. The orange drop
had to be fitted into the cramped space of the IF subchassis. I guess there
are better alternatives now. Those were the good ol days. R390A and nonAs
were plentiful. I went through 6 As and 2 non As. Only kept my old R392....

Best 73s

Guido Santacana KP4FAR

On Wed, Sep 30, 2015 at 6:40 PM, JAMES HANLON via BoatAnchors <
boatanchors at theporch.com> wrote:

> Bill,
>
> I am forwarding your request below to the Boatanchors Reflector. There
> are a number of folks there who are experienced R390A mechanics and who
> should be able to offer you some well-informed advice. I understand you've

> been advised to start by replacing all of the capacitors. I suggest you
> hold off on that until you've heard from several knowledgeable R390a
> owners. My general experience in restoring more than 40 Communications
> receivers dating back as far as 1933 is that about 90% of the time I do not
> see evidence of wholesale, end-of-life behavior with all of the caps.
> There are some particular, well-known types of caps such as molded
> "black-beauties" and the molded caps found in BC348 receivers that should
> be replaced. But my general experience says just to replace the ones that
> are leaky or shorted and leave the others alone.
>
> Jim Hanlon, W8KGI
>
> From: Bill Ripley <bill.ripley at ces-noam.com> Date: Wed, 30 Sep 2015
> 03:18:28 +0000To: jpanthes at comcast.net<jpanthes at comcast.net>; James
> Hanlon<knjhanlon at msn.com>Subject: KY5Q Acquired R-390A I bought an R-390A
> last week, Seems to be in good condition and not badly abused. I have not
> fired it up yet, but the guy that I bought it from told me that he turned
> it on and listened to WWV in a few spots and all seemed to be OK. This is
> my first foray into restoring anything this good and wondered if you guys
> had any opinions. I?m thinking I should invest in some cleaners (like
> De-Oxit), but I?d love to have some advice as to which ones are good, and
> any pitfalls. After I get the thing running well (whatever that means),
> I?ve noticed a mod that looked pretty good from Treetop Circuits that added
> a SSB detector on a PCB that mounts on the back and installs very
> non-invasively. http://www.treetopcircuits.com/docs/SB390Manual.pdf
> Thoughts? Bill RipleyCreative Electronic Systems - North America(505)
> 503-7491 (Office)(505) 980-8353 (Cell)Bill.Ripley at CES-NoAm.com
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From wb3fau55 at neo.rr.com Fri Oct 2 06:04:32 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Fri, 2 Oct 2015 6:04:32 -0400
Subject: [BoatAnchors] FW: KY5Q Acquired R-390A
In-Reply-To: <CAO1yix0V4UkRgrgN7-BwTWjSqkQ4TMk+3yYAfT8abtOUFEmOHw@mail.gmail.com>
Message-ID: <20151002100433.S0XLE.157575.root@cdptpa-web01>

Guys, all kinds of strange problems with these, depending on how stored, and who

the maker was. A Teledyne model here, had a broken band change shaft. Could have been avoided by proper lube of the drive and gears. Broken shaft clamps were another interesting problem, caused mostly by improper annealing of the clamps-[non- Collins]. Most other problems already mentioned by others. Cool radios when fixed. Pretty amazing performance when all repairs and maint. done correctly. Need not be Collins or EAC to be an outstanding performer.
  Anyone have a spare audio chassis for an R-390A? or just a chassis with connectors? A true BA worth your time to fix. 73s Russ.
---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
> Back in the late 90s I remember discussing a list of capacitors recommended
for replacement in the R390A. It may still be around in some old postings.
Nonetheless, C553 was an obligatory replacement. In those times there was
this thing about using orange drop caps in place of C553. The orange drop
had to be fitted into the cramped space of the IF subchassis. I guess there
are better alternatives now. Those were the good ol days. R390A and nonAs
were plentiful. I went through 6 As and 2 non As. Only kept my old R392....

Best 73s

Guido Santacana KP4FAR

On Wed, Sep 30, 2015 at 6:40 PM, JAMES HANLON via BoatAnchors <
boatanchors at theporch.com> wrote:

> Bill,
>
> I am forwarding your request below to the Boatanchors Reflector. There
> are a number of folks there who are experienced R390A mechanics and who
> should be able to offer you some well-informed advice. I understand you've
> been advised to start by replacing all of the capacitors. I suggest you
> hold off on that until you've heard from several knowledgeable R390a
> owners. My general experience in restoring more than 40 Communications
> receivers dating back as far as 1933 is that about 90% of the time I do not
> see evidence of wholesale, end-of-life behavior with all of the caps.
> There are some particular, well-known types of caps such as molded
> "black-beauties" and the molded caps found in BC348 receivers that should
> be replaced. But my general experience says just to replace the ones that
> are leaky or shorted and leave the others alone.
>
> Jim Hanlon, W8KGI
>
> From: Bill Ripley <bill.ripley at ces-noam.com> Date: Wed, 30 Sep 2015
> 03:18:28 +0000To: jpanthes at comcast.net<jpanthes at comcast.net>; James
> Hanlon<knjhanlon at msn.com>Subject: KY5Q Acquired R-390A I bought an R-390A
> last week, Seems to be in good condition and not badly abused. I have not
> fired it up yet, but the guy that I bought it from told me that he turned
> it on and listened to WWV in a few spots and all seemed to be OK. This is
> my first foray into restoring anything this good and wondered if you guys

> had any opinions. I?m thinking I should invest in some cleaners (like
> De-Oxit), but I?d love to have some advice as to which ones are good, and
> any pitfalls. After I get the thing running well (whatever that means),
> I?ve noticed a mod that looked pretty good from Treetop Circuits that added
> a SSB detector on a PCB that mounts on the back and installs very
> non-invasively. http://www.treetopcircuits.com/docs/SB390Manual.pdf
> Thoughts? Bill RipleyCreative Electronic Systems - North America(505)
> 503-7491 (Office)(505) 980-8353 (Cell)Bill.Ripley at CES-NoAm.com
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From johnmb at nc.rr.com Sat Oct 3 08:09:44 2015
From: johnmb at nc.rr.com (john)
Date: Sat, 03 Oct 2015 08:09:44 -0400
Subject: [BoatAnchors] Pix of Zach Reynolds ham shack W4TXL
Message-ID: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>

A daily performance car blog (bangshift.com) led to a mention of Turbonique rocket engines which led to Zach Reynolds Galaxie , which led to pix of his hamshack. Rainy mornings are good for web surfing.

Tobacco money sure bought nice ham gear (and motorcycles, planes, cars).

Here's some pix of the vintage ham station

http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio.jpg

http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio3.jpg

http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio2.jpg

73
John K5MO

III

This email has been checked for viruses by Avast antivirus software.
http://www.avast.com

From anchor at ec.rr.com Sat Oct 3 10:22:38 2015
From: anchor at ec.rr.com (Al Parker)
Date: Sat, 3 Oct 2015 10:22:38 -0400
Subject: [BoatAnchors] Pix of Zach Reynolds ham shack W4TXL
In-Reply-To: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>
References: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>
Message-ID: <560FE4AE.2090305@ec.rr.com>

Hi John,

Looks like the rain has passed you by now this AM. We've had sun over here on the coast for 2 hrs or so, nice change after 10 days or so of rain. Everything's green, incl. the driveway.

When we lived over in Salisbury, NC, 30 mi. or so from Winston Salem where Zach lived, I worked him one AM on 40m SSB. We yakked for 30-40 min. IIRC, about motorcycles largely, as I used to be a dealer, and we both frequented Daytona Speed Week every yr. He had a big, fast drag bike on display in his foyer, just inside the front door, pix in one of the bike mags back then (around 1985 I think). During the QSO he changed over to a "walkie-talkie", less than 1 watt out, don't remember the name/type, but I copied OK. Never met him. A real unique character.

At Shelby this yr there was an amp for sale that had been built for him. <http://www.virhistory.com/ham/shelby-15/IMG_8465.JPG> for pic, from Nick's collection of pix. It sold, price reasonable, IIRC.

73,

Al, W8UT
www.boatanchors.org
www.hammarlund.info

"There is nothing -- absolutely nothing -- half so much
worth doing as simply messing about in boats"
Ratty, to Mole

On 10/3/2015 8:09 AM, john via BoatAnchors wrote:
> A daily performance car blog (bangshift.com) led to a mention of Turbonique rocket engines which led to Zach Reynolds Galaxie , which led to pix of his hamshack. Rainy mornings are good for web surfing.
>

> Tobacco money sure bought nice ham gear (and motorcycles, planes, cars).
>
> Here's some pix of the vintage ham station
>
> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio.jpg
>
>
> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio3.jpg
>
>
> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio2.jpg
>
>
> 73
> John K5MO
>
>
>
> III
>
> ---
> This email has been checked for viruses by Avast antivirus software.
> http://www.avast.com
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From jp at cs.unc.edu Sat Oct 3 11:36:13 2015
From: jp at cs.unc.edu (John Poulton)
Date: Sat, 3 Oct 2015 11:36:13 -0400
Subject: [BoatAnchors] Pix of Zach Reynolds ham shack W4TXL
In-Reply-To: <560FE4AE.2090305@ec.rr.com>
References: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>
 <560FE4AE.2090305@ec.rr.com>
Message-ID: <CAKtz7ffdBLeReTrST+kgA22ysF3_w3vgmBtBs4a3-z0YUtii2w@mail.gmail.com>

And.. that big transmitter on the left in the color photo..? That's at Bill Smitherman's shack, up north of Winston. Along with several of its friends.. :)

73, John K4OZY

On Sat, Oct 3, 2015 at 10:22 AM, Al Parker via BoatAnchors <
boatanchors at theporch.com> wrote:

> Hi John,
>   Looks like the rain has passed you by now this AM. We've had sun
> over here on the coast for 2 hrs or so, nice change after 10 days or so of
> rain. Everything's green, incl. the driveway.
>   When we lived over in Salisbury, NC, 30 mi. or so from Winston
> Salem where Zach lived, I worked him one AM on 40m SSB. We yakked for
> 30-40 min. IIRC, about motorcycles largely, as I used to be a dealer, and
> we both frequented Daytona Speed Week every yr. He had a big, fast drag
> bike on display in his foyer, just inside the front door, pix in one of the
> bike mags back then (around 1985 I think). During the QSO he changed over
> to a "walkie-talkie", less than 1 watt out, don't remember the name/type,
> but I copied OK. Never met him. A real unique character.
>   At Shelby this yr there was an amp for sale that had been built
> for him. <http://www.virhistory.com/ham/shelby-15/IMG_8465.JPG> for pic,
> from Nick's collection of pix. It sold, price reasonable, IIRC.
> 73,
>
> Al, W8UT
> www.boatanchors.org
> www.hammarlund.info
>
> "There is nothing -- absolutely nothing -- half so much
> worth doing as simply messing about in boats"
> Ratty, to Mole
>
> On 10/3/2015 8:09 AM, john via BoatAnchors wrote:
>
>> A daily performance car blog (bangshift.com) led to a mention of
>> Turbonique rocket engines which led to Zach Reynolds Galaxie , which led
>> to pix of his hamshack. Rainy mornings are good for web surfing.
>>
>> Tobacco money sure bought nice ham gear (and motorcycles, planes, cars).
>>
>> Here's some pix of the vintage ham station
>>
>>
>> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-
FDE59BDB2018&imgname=zach-reynolds-ham-radio.jpg
>>
>>
>>
>> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-
FDE59BDB2018&imgname=zach-reynolds-ham-radio3.jpg
>>

>>
>>
>> http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio2.jpg
>>
>>
>> 73
>> John K5MO
>>
>>
>>
>> III
>>
>> ---
>> This email has been checked for viruses by Avast antivirus software.
>> http://www.avast.com
>>
>> ____
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>
>> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From w8au at sssnet.com Sat Oct 3 14:37:05 2015
From: w8au at sssnet.com (w8au at sssnet.com)
Date: Sat, 03 Oct 2015 14:37:05 -0400
Subject: [BoatAnchors] Pix of Zach Reynolds ham shack W4TXL
In-Reply-To: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>
References: <6.2.1.2.2.20151003080047.049a7dd0@pop-server.nc.rr.com>
Message-ID: <mailman.349.1443897433.247.boatanchors@theporch.com>

I have his QSL, and also met him at Dayton many years ago. Very friendly fellow.
There were more hamshacks and more pix, especially of his full sized rotary 80M Yagi beam and
the rest of his antenna farm and large home.   He left early...unfortunate he is no longer with us.

Perry   w8au

At 08:09 AM 10/3/2015, you wrote:

>A daily performance car blog (bangshift.com) led to a mention of
>Turbonique rocket engines which led to Zach Reynolds Galaxie , which
>led to pix of his hamshack. Rainy mornings are good for web surfing.
>Here's some pix of the vintage ham station
>
>http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio.jpg
>
>http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio3.jpg
>
>http://www.zachreynolds.com/popup/popup.asp?sid=32302CC4-1738-4A8B-A3E5-FDE59BDB2018&imgname=zach-reynolds-ham-radio2.jpg
>
>73
>John K5MO

From k1lky68 at gmail.com Sat Oct 3 22:01:45 2015
From: k1lky68 at gmail.com (Roy Morgan)
Date: Sat, 3 Oct 2015 22:01:45 -0400
Subject: [BoatAnchors] A Vision from the Past
In-Reply-To: <1403947021.3980052.1443734490791.JavaMail.yahoo@mail.yahoo.com>
References: <1403947021.3980052.1443734490791.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <91B43B85-53FF-4223-8796-050AD81521F2@gmail.com>

On Oct 1, 2015, at 5:21 PM, John Sehring via BoatAnchors <boatanchors at theporch.com> wrote:

> When I was just a kid, I spent 4 years in the U.S. Air Force,

John,

Thank you for your service!

> ? an AC voltmeter, measured 0.005 to 500 volts fs AC. Made by Daven Electronics, nomenclature ME-6D/U.
> Had a curious meter readout--the scale was proportional to the logarithm of the input signal! So lthe dB scale is itself linear.

Of course Daven was the maker of the best audio volume controls/attenuators - GR-type sliding wiper contacts, wire wound resistors, high quality last-forever construction, metal shell cases ? Every radio station audio control panel had many. Very expensive, but worth it.

The logarithmic nature of that meter scale is accomplished, as I remember, by the meter movement itself. It uses carefully shaped pole pieces or some such mechanical trick to accomplish this. There are other similar meter movements to be seen in meters of that age.

The meter face says RMS Volts - this may well be actually true RMS response rather than RMS indication based on rectified sine wave action. To test this, feed it a square wave and see if you get the value of the peak (flat top) of the square waveform. (You do have a nice oscilloscope handy, right?)

A rack mount tube type true RMS meter by Ballantine I have had used a series of diodes and resistors to closely approximate (quite accurately, I think) the logarithmic response. I?m not sure how HP did this in their many versions of true RMS indicating meters.

> And, the needle rested below the left hand end of the scales.

This is the clue to its being a logarithmic responding meter movement. I think you will not find any zero set adjustment for the meter needle. If you do, don?t mess with it. I?d expect calibration to include sequential adjustments of the circuit at bottom and top of the meter range.

> Well, here I am, 50 years later, at a hamfest in Spokane WA, and what do I see on a table but, can it be--you guessed it. An ME-6D/U, in quite nice shape,

The Radio Gods smiled upon you that day!

> Have not calibrated it yet but working FB after a slow cook on a Variac.

I will send separately my diatribe on ?just bring it up slowly on a variac? and the disasters you can invite by doing that. You got lucky this time, but maybe not next time.

> Circuit uses one 5879 (don't know anything about that tube) & 2@ 6AH6's, all as voltage amps.

The 5879 seems to have a unique pinout - it is the *only* tube listed in my late RCA tube manual (RC-30) for that base diagram. It is intended for low noise, low hum and low microphonic performance in audio amplifier service. (I suggest you get some spares if you can! AES does not even list that type.) I thought it might be the industrial version of a more common tube like 6AH6, but no (though I have not looked at the base diagram in detail - the way the socket in your ME-6 is wired you may be able to use some other more common tube.) I would expect some other substitute to cause trouble only on the highest sensitivity range of the meter.

> And there's an oddball (well, I haven't ever seen one) "current regulator RT-101 2A12" wired in series with the power transformer's 120 V primary.

That is indeed an odd ball. I had never heard of such a thing, with thermal relay included.

> Thanks for indulging me my trip down sentimental lane.

More than one list member will be glad of the trip!

(I tried the link you mentioned
elektrotanya.com
and got only a discussion type conversation thread listing, and could not find any search tab. Can you send a more complete link?)

Roy
USN, retired

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From k1lky68 at gmail.com Mon Oct 5 07:58:25 2015
From: k1lky68 at gmail.com (Roy Morgan)
Date: Mon, 5 Oct 2015 07:58:25 -0400
Subject: [BoatAnchors] KY5Q Acquired R-390A
In-Reply-To: <BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
References: <557463389-1443584517-cardhu_decombobulator_blackberry.rim.net-1176666638-@b4.c2.bise6.blackberry>,
 <BAY403-EAS316AFF47EA0D6D988164CC6B94D0@phx.gbl>
 <BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
Message-ID: <E0CF9A7C-D021-4FCA-9AD1-28B145F269F5@gmail.com>

(Not sure this got send earlier - my mailer is a bit wonky.):

On Sep 30, 2015, at 6:40 PM, JAMES HANLON via BoatAnchors <boatanchors at theporch.com> wrote:

> ... KY5Q Acquired R-390A I bought an R-390A last week, ... I?d love to have some advice ?

Bill and others,

The R-390A is perhaps the most complicated receiver you can come across. It is Collins genius engineering in both electronic and mechanical realms. Despite its somewhat daunting complexity, it is very fixable, and a legendary performer once running right. About the worst thing about this receiver is that once you have one and mess around with it for a while, you want more of them! (There are some 3 or 4 variants of the radio, each with its own purpose and personality.) One affliction some owners have fallen prey to, is that as you read the manuals, you begin to want a collection of the original test equipments used to service them, and you start haunting hamfest and that auction place for these instruments (URM-25 Signal Generator, TS-505 VTVM, the audio output meter ?)

> ... I?ve noticed a mod that looked pretty good from Treetop Circuits that added a SSB detector on a PCB that mounts on the back ?   Thoughts?

That modification, or rather add on device, is likely to give much improved performance on SSB and even CW. I?ve never used one, but I think you are lucky to have it. (Oh, you don?t have one, just noticed it online.)

No, on the other hand, it?s true junk. Don?t even try it out. Just send it to me and I?ll save you the trouble of messing with it. I?ll send postage. Ok, triple the postage?

HAH!

The R-390 family came into being before SSB was widely used, and thus is not meant to do that mode as well as it does others. (The R-390 family was used extensively by the military in teletype and other data services for many years.) (Note, the period SSB adapter is the CV-591, and nowadays they bring prices about the same as the receiver.)

There is a mail reflector dedicated to that receiver and its cousins:
____
R-390 mailing list
Home: http://mailman.qth.net/mailman/listinfo/r-390
Help: http://mailman.qth.net/mmfaq.htm
Post: mailto:R-390 at mailman.qth.net

The list has been rather quiet compared to years earlier, but is still active. The folks there are quite happy to welcome a new member, and to help with all manner of advice and tips. More than one of the list members spent his military time fixing and aligning these radios full time. In particular, one Roger Ruszkowski, flowertime01 at wmconnect.com Is a true expert and has had superb advice for those of us who have these radios. If you follow Rogers advice and procedures, you?ll have one of the finest performing radios of that era, period.

One superb website about the receiver is this one:

http://www.r-390a.net/

The ?References? section is particularly good, and the ?Pearls of Wisdom? compilations constitute some thousand pages of posts on the radio, compiled over the years.

In particular, the R-390A Y2K Manual is a complete re-write of the best militarily manual, with extensive improvements, and has clear and extended diagrams, and I highly recommend it. If you try to print it all, stand by. There are a couple or three hundred pages, but you will need no other manual. It is well worth getting the thing in sections and having it printed section by section at your local office supply store as you can afford it.

I will send to Bill separately my notes file on the radio.

Roy
Who is happy to discuss the R-390 radios at any time!

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From wb0eq at yahoo.com Tue Oct 6 11:24:48 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Tue, 6 Oct 2015 15:24:48 +0000 (UTC)
Subject: [BoatAnchors] RF Probes
Message-ID: <1822237690.1291032.1444145088821.JavaMail.yahoo@mail.yahoo.com>

Looking around my shack I see too many RF millivolt meters without probes.

I have a Boonton 92E, Hewlett Packard 411A, Boonton 91CA.

Where do these probes go, into some black hole?

Even when some details are supplied for the probes, typically no part numbers nor type are given for the diodes in them.

The internet has a lot of info, some of it contradictory. And then there's proper probe packaging, not trivial for RF. Double-shielded, "low noise" coax is specified for leads.

I am tempted to take these meters to our next hamfest (Oct. 10 in Calgary, Alberta)! What say you?

 --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

From k1lky68 at gmail.com Tue Oct 6 11:47:43 2015
From: k1lky68 at gmail.com (Roy Morgan)

Date: Tue, 6 Oct 2015 11:47:43 -0400
Subject: [BoatAnchors] RF Probes
In-Reply-To: <1822237690.1291032.1444145088821.JavaMail.yahoo@mail.yahoo.com>
References: <1822237690.1291032.1444145088821.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <54364AAC-B03C-43B6-A0DF-5B670B6C8699@gmail.com>

On Oct 6, 2015, at 11:24 AM, John Sehring via BoatAnchors <boatanchors at theporch.com> wrote:

> Looking around my shack I see too many RF millivolt meters without probes.
> ...
> Where do these probes go, into some black hole?

John,

YES,

There is a little recognized astronomical anomaly unofficially called The Radio Bits Black Hole. It sucks in things like the probes for millivoltmeters, RF milliwatt meters, those rare but oh-so-useful HP clamp-on milliammeters. There is very special region of extra-intense gravitational nihilistic reality-warp for the Tee adapter for the General Radio RF probe found on the beloved GR-1801A VTVM. Next to that is the place that all the Daven attenuators, still-good microwave diodes, and diode tubes for the HP RF voltmeter probes are forever ensconced, along with a large area for the URM-25 adapters.

Sigh.

I only know of these things because of a short-lived extra dimensional communication that was channeled to me once years ago when I?d spent way too many hours trying to align an ancient receiver.

> Even when some details are supplied for the probes, typically no part numbers nor type are given for the diodes in them.

I do have some information about that and can dig it up and send it to folks interested.

> The internet has a lot of info, some of it contradictory. And then there's proper probe packaging, not trivial for RF. Double-shielded, "low noise" coax is specified for leads.

Egad, an engineering nightmare.

> I am tempted to take these meters to our next hamfest (Oct. 10 in Calgary, Alberta)! What say you?

We should embark on a coordinated, intensive project to develop and manufacture replacement probes. Cost might be less than $35 each, even if we get a teensy circuit board made to order. I know a seasoned and experienced retired components engineer, and there have been rumors of inexpensive circuit board fabrication houses.

Roy
who has only one probe among three Boonton RF milivoltmeters.

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From gumbear at pacbell.net Tue Oct 6 14:45:51 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Tue, 6 Oct 2015 11:45:51 -0700
Subject: [BoatAnchors] RF Probes
In-Reply-To: <1822237690.1291032.1444145088821.JavaMail.yahoo@mail.yahoo.com>
References: <1822237690.1291032.1444145088821.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <1996B52EB4F6441197D2BE33C62E54F3@KB6NAX>

> ....I am tempted to take these meters to our next hamfest (Oct. 10 in
> Calgary, Alberta)! What say you?

I say it takes some patience to reunite Boonton RF probes with their meters. But I finally got probes for my two RF millivolt meters by regularly nagging the 'Bay place. Now, if I could only find something to work on that needs it's RF millivolts measured ;-)

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From wb0eq at yahoo.com Tue Oct 6 15:40:36 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Tue, 6 Oct 2015 19:40:36 +0000 (UTC)
Subject: [BoatAnchors] A vision from thepast
Message-ID: <8957899.1464349.1444160436229.JavaMail.yahoo@mail.yahoo.com>

Roy Morgan wrote that link provided NG.

>I tried the link you mentioned

elektrotanya.com
>and got only a discussion type conversation thread listing, and could not find any search tab. Can >you send a more complete link?

That is the correct link, elektrotanya

Some times emails don't handle URL correctly. I believe it's from Russia.

--John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada

From k1lky68 at gmail.com Tue Oct 6 21:53:18 2015
From: k1lky68 at gmail.com (Roy Morgan)
Date: Tue, 6 Oct 2015 21:53:18 -0400
Subject: [BoatAnchors] KY5Q Acquired R-390A
In-Reply-To: <BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
References: <557463389-1443584517-cardhu_decombobulator_blackberry.rim.net-1176666638-@b4.c2.bise6.blackberry>,
 <BAY403-EAS316AFF47EA0D6D988164CC6B94D0@phx.gbl>
 <BLU184-W743BA31DC4B8846C6AEA15A04D0@phx.gbl>
Message-ID: <F7319EDC-BEEF-46ED-8460-F388DD3FA092@gmail.com>

On Sep 30, 2015, at 6:40 PM, JAMES HANLON via BoatAnchors <boatanchors at theporch.com> wrote:

> ... KY5Q Acquired R-390A I bought an R-390A last week, ... I?d love to have some advice ?

Bill and others,

The R-390A is perhaps the most complicated receiver you can come across. It is Collins genius engineering in both electronic and mechanical realms. Despite its somewhat daunting complexity, it is very fixable, and a legendary performer once running right. About the worst thing about this receiver is that once you have one and mess around with it for a while, you want more of them! (There are some 3 or 4 variants of the radio, each with its own purpose and personality.) One affliction some owners have fallen prey to, is that as you read the manuals, you begin to want a collection of the original test equipments used to service them, and you start haunting hamfest and that auction place for these instruments (URM-25 Signal Generator, TS-505 VTVM, the audio output meter ?)

> ... I?ve noticed a mod that looked pretty good from Treetop Circuits that added

a SSB detector on a PCB that mounts on the back ?   Thoughts?

That modification, or rather add on device, is likely to give much improved performance on SSB and even CW. I?ve never used one, but I think you are lucky to have it. (Oh, you don?t have one, just noticed it online.)

No, on the other hand, it?s true junk. Don?t even try it out. Just send it to me and I?ll save you the trouble of messing with it. I?ll send postage. Ok, triple the postage?

HAH!

The R-390 family came into being before SSB was widely used, and thus is not meant to do that mode as well as it does others. (The R-390 family was used extensively by the military in teletype and other data services for many years.) (Note, the period SSB adapter is the CV-591, and nowadays they bring prices about the same as the receiver.)

There is a mail reflector dedicated to that receiver and its cousins:
____
R-390 mailing list
Home: http://mailman.qth.net/mailman/listinfo/r-390
Help: http://mailman.qth.net/mmfaq.htm
Post: mailto:R-390 at mailman.qth.net

The list has been rather quiet compared to years earlier, but is still active. The folks there are quite happy to welcome a new member, and to help with all manner of advice and tips. More than one of the list members spent his military time fixing and aligning these radios full time. In particular, one Roger Ruszkowski, flowertime01 at wmconnect.com Is a true expert and has had superb advice for those of us who have these radios. If you follow Rogers advice and procedures, you?ll have one of the finest performing radios of that era, period.

One superb website about the receiver is this one:

http://www.r-390a.net/

The ?References? section is particularly good, and the ?Pearls of Wisdom? compilations constitute some thousand pages of posts on the radio, compiled over the years.

In particular, the R-390A Y2K Manual is a complete re-write of the best militarily manual, with extensive improvements, and has clear and extended diagrams, and I highly recommend it. If you try to print it all, stand by. There are a couple or three hundred pages, but you will need no other manual. It is well worth getting the thing in sections and having it printed section by section at your local office supply store as you can afford it.

I will send to Bill separately my notes file on the radio.

Roy
Who is happy to discuss the R-390 radios at any time!

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From wb0eq at yahoo.com Tue Oct 6 22:58:46 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Wed, 7 Oct 2015 02:58:46 +0000 (UTC)
Subject: [BoatAnchors] RF Probes
Message-ID: <821640363.1716693.1444186726138.JavaMail.yahoo@mail.yahoo.com>

>There is a little recognized astronomical anomaly unofficially called The Radio Bits Black Hole. It sucks in >things like the probes for millivoltmeters,
I think I need to talk to those Noble-prize-winning neutrino guys about this.
--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From smithab11 at comcast.net Wed Oct 7 09:13:06 2015
From: smithab11 at comcast.net (B. Smith)
Date: Wed, 7 Oct 2015 09:13:06 -0400
Subject: [BoatAnchors] RF Probes
In-Reply-To: <821640363.1716693.1444186726138.JavaMail.yahoo@mail.yahoo.com>
References: <821640363.1716693.1444186726138.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <56151A62.4000709@comcast.net>

On 10/6/2015 10:58 PM, John Sehring via BoatAnchors wrote:
>> There is a little recognized astronomical anomaly unofficially called The Radio Bits Black Hole. It sucks in >things like the probes for millivoltmeters,
> I think I need to talk to those Noble-prize-winning neutrino guys about this.
> --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
> ____
>
This astronomical anomaly is tied directly to the Weller Soldering Iron
Magnetic Phenomenon - -- the result of which draws or attract the Weller
from the bench to the concrete floor.
http://k4che.com/WellerIrons/Wellerpage1.html
k4che

From k1lky68 at gmail.com Wed Oct 7 12:38:33 2015
From: k1lky68 at gmail.com (Roy Morgan)
Date: Wed, 7 Oct 2015 12:38:33 -0400

Subject: [BoatAnchors] RF Probes
In-Reply-To: <56151A62.4000709@comcast.net>
References: <821640363.1716693.1444186726138.JavaMail.yahoo@mail.yahoo.com>
 <56151A62.4000709@comcast.net>
Message-ID: <502955E2-0B92-42E5-8CFC-1832A040DD32@gmail.com>

On Oct 7, 2015, at 9:13 AM, B. Smith via BoatAnchors <boatanchors at theporch.com> wrote:

> On 10/6/2015 10:58 PM, John Sehring via BoatAnchors wrote:
>>> There is a little recognized astronomical anomaly unofficially called The Radio Bits Black Hole. It sucks in >things like the probes for millivoltmeters,?

> This astronomical anomaly is tied directly to the Weller Soldering Iron Magnetic Phenomenon - -- the result of which draws or attract the Weller from the bench to the concrete floor.
> http://k4che.com/WellerIrons/Wellerpage1.html

I suspect it is a cosmic reaction to the continued efforts by physicists to unravel the real truth about the fundamental nature of the universe - a kind of thumbing of the nose at us.

I had not seen the phenomenon so clearly illustrated or explained. I have here a Weller 8100 that has lived since about 1959 in a wood floor radio room. Perhaps its minimal case damage is due to a lesser magnetic attraction by the wood floor here.

Roy

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From wb3fau55 at neo.rr.com Wed Oct 7 18:12:15 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Wed, 7 Oct 2015 18:12:15 -0400
Subject: [BoatAnchors] tubes needed
Message-ID: <20151007221216.QNFL3.240802.root@cdptpa-web01>

To the gang-   I am in need of some 6K8s for my HQ-120 and HQ-129 projects. I know I can get new ones from bigger suppliers. I just wanted to see if I could get some from some of our readers. Good used,
metal is fine. I need 4 of these. Please give a price with your email. 73s
Russ.

From dave at horsfall.org Wed Oct 7 22:20:46 2015
From: dave at horsfall.org (Dave Horsfall)
Date: Thu, 8 Oct 2015 13:20:46 +1100 (EST)
Subject: [BoatAnchors] RF Probes
In-Reply-To: <502955E2-0B92-42E5-8CFC-1832A040DD32@gmail.com>
References: <821640363.1716693.1444186726138.JavaMail.yahoo@mail.yahoo.com>
 <56151A62.4000709@comcast.net>
 <502955E2-0B92-42E5-8CFC-1832A040DD32@gmail.com>
Message-ID: <alpine.BSF.2.11.1510081317490.5471@aneurin.horsfall.org>

On Wed, 7 Oct 2015, Roy Morgan via BoatAnchors wrote:

> I suspect it is a cosmic reaction to the continued efforts by physicists
> to unravel the real truth about the fundamental nature of the universe -
> a kind of thumbing of the nose at us.

Nah; it's all about the anti-photons, which create black light; look at
any disco, and you'll see the opposites mixing together...

--
Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From wb6orz at comcast.net Thu Oct 8 00:21:44 2015
From: wb6orz at comcast.net (Les Zwiebel)
Date: Wed, 7 Oct 2015 21:21:44 -0700
Subject: [BoatAnchors] WANT Please: Knight Star Roamer Parts
Message-ID: <003601d10180$d7976540$86c62fc0$@comcast.net>

Needed please: Coil L3 and also the S-meter.

Thanks in advance.

(((73)))

Les

---===WB6ORZ===---

From kd5byb at kd5byb.net Thu Oct 8 19:51:23 2015
From: kd5byb at kd5byb.net (Ben Hall)
Date: Thu, 8 Oct 2015 18:51:23 -0500
Subject: [BoatAnchors] A tale of three Navy GF-11 transmitters
Message-ID: <5617017B.5030402@kd5byb.net>

Good evening all,

I've managed to acquire three US Navy GF-11 transmitters, all of contact date 21 April 1941. The SCR-183 and RU/GF series of transmitters and receivers really appeal to me.

The first unit, serial 2496, is completely unmodified. It matches the wiring diagram and schematic shown in the RU-16/GF-12 manual purchased from Robert Downs, WA5CAB, perfectly. (I should also note that his manuals are worth every penny - probably the most perfect manual reprints around.) The information tags on this unit are made of metal and etched. The wire used is single-color and best I can tell with the aging of the dye, per the wiring diagram.

The second unit, serial 8762, has two modifications. Or are they modifications? It is missing the HIGH/LOW side-tone switch and side-tone transformer 114. I can tell that there was a HIGH/LOW toggle switch installed at one point, as the thru-hole has the distinct outline of a toggle switch nut and there is evidence that a tag denoting this as the HIGH/LOW side-tone switch was present at one time. The unit does not have metal information tags; these appear to be some sort of non-metal material that was printed. I do recall reading somewhere that these types of tags were used when Western Electric ran out of metal tags. It does not have solid color wire, but has white wire with tracers of the colors noted in the wiring diagram.

Here's the rub with serial 8762 - when the switch and transformer were removed, it had to be rewired. The job was done so perfectly, it looks absolutely factory. So I'm not sure if this is a modification, or not! If this was done outside a Western Electric factory or a professional repair depot, my hat is off to the person that did it; it is clear they knew what they were doing. The rest of the unit shows no obvious signs of unprofessional "tampering" - the screwheads are not buggered, the vents are perfect, all the screws matched, they all had their lock-washers, etc...

---> Anyone seen a similar GF-11 that is missing the side-tone circuity but was done in an extremely professional manner?

The third unit, serial 9980, has the non-metal tags as well. It has been modified in a very sloppy, unorganized fashion, using a fairly significant quantity of electrical tape. (yeech!)

9980 also has the white wire with the color codes in a tracer. The modifications included the removal of the HIGH/LOW sidetone switch and the sidetone transformer 114. The rewiring of the unit after the removal of the sidetone circuit matches serial 8762 above. (Of course, this may be because that's the only way to rewire it so that the end result will operate properly.)

9980 has had its antenna current meter replaced by a milliammeter measuring cathode current in one of the 813 output tubes, has some creative rewiring of the B+ circuitry, and has the two phone current-measurement jacks removed. A masking tape tag on the rear of the case has hook-up instructions, and notes that one pin on the connector is for a microphone, so I assume it was operated AM phone rather than CW.

The "coil set" that came with 9980 was nothing more than the two ceramic units one would find inside of an unmodified GF-11 coil set. (double yeech!)

I am in the process of drawing up a schematic for the unit so I can try to understand what the person was trying to do. The creative rewiring of the B+, while done poorly, seems to have been of a design that would worked. The masking tape on the rear notes that one of the pins was for a VFO, with that wiring running to the plate of the RF OSC tube.

I've not yet looked closely at the coil set remnants, but I would suspect that a modification for an external VFO resulted in some mods to the coil set.

This leads me to my second and third questions:

---> Anyone familiar with a "Surplus Conversion Manual" like modification for the GF-11 along these lines?

---> What do I do with this unit?

With it missing the side-tone switch, transformer 114, the RF ammeter, the current measuring phone jacks, and the "creative" rewiring, it's never going to be a pristine unit. But its far from being a parts set. I'm tempted to clean up the "creative" B+ wiring, remove the VFO lead, and get it working with a stock coil set without the side-tone switch and side-tone circuitry. It then can be an experimental unit and one I can play with a bit without fear of lowering its collector value.

Thoughts? Suggestions? I suspect that since the GF/RU series never had the following of the later ATA and ARC-5 sets, there are not modification articles around anymore and probably no one will have seen a unit like 8762 with its side-tone circuitry removed in a very factory-like way. But! I figured I'd ask. :)

thanks much and 73,
Ben, KD5BYB

From gsantacanav at gmail.com Fri Oct 9 21:15:18 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Fri, 9 Oct 2015 21:15:18 -0400
Subject: [BoatAnchors] Trade offer
Message-ID: <7DF05E93-F7D8-4D0A-98DE-1D330FCDF03E@gmail.com>

Gentlemen,

A few months ago and after much encouragement from ham friends here I acquired an excellent Yaesu FT-990 in excellent shape with all functions working and full output. This one has tne original internal AC supply but the former owner disconnected it inside and was using it with an external supply. I have read that most problems with the internal supply relate to a 5vdc regulator that needs replacement but I have not gone into it. The transceiver is working with the external supply up to specs and cosmetically it is excellent. Signal reports from Europe are excellent too both in CW or SSB using the original Yaesu hand microphone.

As I knew it would happen, my use of the rig has been rather poor for the simple reason that I enjoy the tinkering with the BAs much more than doing QSOs. I guess a small QRP CW transceiver is more than enough for me. So, before this thing goes to the e-payalot place I have decided to give it a shot here in a list that I respect a lot and where I have traded before with gentlemen. So, this is what I would like to do:

Many BAs have passed through my shack but there is one that I have never landed here. My offer is a trade of this tramsceiver for a good Racal R17. It must be complete and working even if it needs a little tweaking here and there. The offer includes the FT990 with original microphone amd external power supply connecting cables. The external power supply is not included because is used for other purposes in the shack. I can send images of the rig.

Well, here it is. It may be a shot in the dark but who knows, someone may have more than one Racal.
Please contact me directly by email.

Best 73s

Guido Santacana KP4FAR
Sent from my iPad

From gsantacanav at gmail.com Sun Oct 11 13:44:25 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Sun, 11 Oct 2015 13:44:25 -0400
Subject: [BoatAnchors] Hammarlund Clock
Message-ID: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>

Does anyone know what is the type of rotor used in the Hammarlund Telechron 12hr clock versus the 24hr clock or is it the same type?

Thanks and 73s

Guido Santacana KP4FAR

Sent from my iPad

From k7sz at live.com Mon Oct 12 16:42:21 2015
From: k7sz at live.com (Rich Arland)
Date: Mon, 12 Oct 2015 16:42:21 -0400
Subject: [BoatAnchors] Frank Henrikson KL0SW (OT)
In-Reply-To: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
Message-ID: <BLU172-W47F97B919D2DA836916690F6310@phx.gbl>

Please forgive the bandwidth BUT....

My good friend and fellow QRPer, BA enthusiast and member of this reflecgtor. pilot and thunderboat aficionado , Frank KL0SW, is MIA. I received an e-mail, sent via him a few weeks ago. He has some health problems and I wanted to check up on him but repeated attempts to e-mail him gone unanswered. In his last couple of e-mails, Frank
indicated that he no longer lived in Alaska. He is no longer at his alternate Big Bear address.

He and I were going to do Dayton next year. Therefore, if any one on this list has his phone number (I traded phones and his number along with others didn't migrate over to the new phone) please contact him and tell him to e-mail me ASAP, please.

Tnx es vy 73

Rich Arland
K7SZ
WPE7BYR
Bent Dipole Ranch, Dacula, GA

Author: "The ARRL's Low Power Communications, the Art and Science of QRP" (all 4 editions)

Blog: http://commobunker.blogspot.com/

"Faith is not about everything turning out OK. It's about being OK, no matter how things turn out."

"Every day we are given the opportunity to sign our name to history", Gen. Mark A.

Welsh III, Chief of Staff, USAF

"Ideals are peaceful. History is violent", Ssgt Don "Wardaddy" Collier, 2nd
Armored Division, US Army

From wb0eq at yahoo.com Tue Oct 13 11:08:00 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Tue, 13 Oct 2015 15:08:00 +0000 (UTC)
Subject: [BoatAnchors] Rescucitation of BA's
References: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>

Someone wrote about rescucitating BA's here on the list.?

I recall mention use of Variac alone on power-up was not enough to prevent damage.
Did I save that message?? No, of course not, it only re-occurred to me later!
So would that poster (and/or others) please chime in?
I've got some pretty heavy duty iron in the wake-up que here, e.g. NC-303, R-390A,
CR-88, GSB-100 so I need to be very much on my toes in my "ER"..
Kinda makes me think about science fiction & people frozen for ultra-long space
flights while in suspended animation.
?As always, thank you for your attention.
--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From navy.radio at gmail.com Tue Oct 13 11:35:29 2015
From: navy.radio at gmail.com (Nick England)
Date: Tue, 13 Oct 2015 11:35:29 -0400
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
References: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
 <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <CAB55hNf9SbbxvYSOKBAaxFoiR9yPvwvDUQq-sQHbDK6Mokdacg@mail.gmail.com>

Hi John - I believe the main worry is that the electrolytic capacitor
may not reform as you bring it up on the variac - the resulting
continuing short across the B+ could lead to burning out the B+
winding on the power transformer.
So if you are an electrolytic reformer (which I am - some other folks
lack the faith) you should disconnect the electrolytics and reform
them first from a separate DC supply. And while you're at it check for
shorts on the B+ line.

A similar worry is a shorted/leaky coupling cap cause the following
tube to draw current like crazy and put a great strain on the power
xfmr as you bring it up. Any capacitor is easier to replace than an
unobtainium power xfmr.

Another recommendation is even when using a variac, stick an incandescent bulb in series with the set under test to limit current.

Nick England K4NYW
www.navy-radio.com

On Tue, Oct 13, 2015 at 11:08 AM, John Sehring via BoatAnchors
<boatanchors at theporch.com> wrote:
> Someone wrote about rescucitating BA's here on the list.
>
> I recall mention use of Variac alone on power-up was not enough to prevent damage.
> Did I save that message? No, of course not, it only re-occurred to me later!
> So would that poster (and/or others) please chime in?
> I've got some pretty heavy duty iron in the wake-up que here, e.g. NC-303, R-390A, CR-88, GSB-100 so I need to be very much on my toes in my "ER"..
> Kinda makes me think about science fiction & people frozen for ultra-long space flights while in suspended animation.
> As always, thank you for your attention.
> --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

From knjhanlon at msn.com Tue Oct 13 14:58:03 2015
From: knjhanlon at msn.com (JAMES HANLON)
Date: Tue, 13 Oct 2015 12:58:03 -0600
Subject: [BoatAnchors] [Boatanchors] Rescucitation of BA's
Message-ID: <BLU184-W860EAAD28EE6D85E46FC07A0300@phx.gbl>

John,

I recall seeing that post you inquired about, and I think it recommended putting an incandescent light bulb in series with the power lead to the set that you are bringing up on a Variac. The thought behind this is that the bulb would act as a variable resistor and in particular that it would light up and take most of the voltage applied to the set in case there were some kind of short across the power transformer, either primary or secondary.   Something on the order of a 100 watt bulb would probably do the trick.

I can think for example of the HRO-50T1 and HRO-60 receivers where there was originally a paper capacitor bypass from one side of the power transformer HV secondary to ground. When, not if, that capacitor shorted, it was guaranteed to take out the power transformer. Bringing up one of these guys with a series light bulb would prevent that kind of self-destruction. (I would strongly recommend to any owners of those HROs that they remove that capacitor immediately. My HRO-50 does not have it, and it has played happily for me since the summer of 1950 when my Dad bought it for my brother and me from Steinburgs in Cincinnati; and my recently acquired HRO-50R1 does not miss it either.)

73,

Jim Hanlon, W8KGI

From gumbear at pacbell.net Tue Oct 13 15:24:29 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Tue, 13 Oct 2015 12:24:29 -0700
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
References: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
 <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <DD022DE6550A4C07856BEC892302F7D0@KB6NAX>

> I recall mention use of Variac alone on power-up was not enough to prevent
> damage. ......

I've contributed to that line of discussion in the past. Here is a basic approach to bringing up something on a variac: You MUST have an ammeter in line. Volts times Amperes equals Power (EI=W). If a radio uses 120 watts normally operating the line current will be one ampere, of course. If something is burning up in the receiver the ammeter would say "fire" if it could speak. In other words the current would not remain constant as components incinerate. Bringing up a rig on a variac requires constant monitoring of current until a state of stability is reached. When that occurs make note of the current. Allow the rig to "burn in" for some hours while frequently checking the current reading. If things remain virtually constant for several hours after warm up you may be home free but burn in should last for a day or more as weakened components may decided to give up after a while. It's always a gamble that everything will come out OK with these ancient maritime relics but that's what the soldering iron was invented for. Good luck!

Arden Allen
Classical Audio Service
735 6th. St.
Vallejo, CA 94590
707-553-2361
audioservice at pacbell.net

From gsantacanav at gmail.com Tue Oct 13 17:23:26 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Tue, 13 Oct 2015 17:23:26 -0400
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <DD022DE6550A4C07856BEC892302F7D0@KB6NAX>
References: <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
 <1991706035.2984571.1444748880156.JavaMail.yahoo@mail.yahoo.com>
 <DD022DE6550A4C07856BEC892302F7D0@KB6NAX>
Message-ID: <FA8D6F6E-760B-4E78-9FFB-A582F1E34EE2@gmail.com>

When I found my TMC GPR-90 the seller had connected the radio to the wall outlet. I told him to please keep it off. Unfortunately he had already tried it and told me that it turned on briefly and then went out. I thought, maybe is just the fuse, but someone had already replaced it with a 10 amp car fuse. Power transformer primary went kaput. This is why my method is to:

- replace all paper caps and electrolytics
- check all connections
- clean well
- check resistors
-recheck everything
- turn on without the rectifier tube
-turn on with the rectifier tube with a dim bulb tester in line
- enjoy the rig for years to come.

I prefer not to work with reformed electrolytics. One can always hide moder ones inside or underneath the old cans.

73s

Guido Santacana KP4FAR

Sent from my iPad

On Oct 13, 2015, at 3:24 PM, Arden Allen via BoatAnchors <boatanchors at theporch.com> wrote:

>> I recall mention use of Variac alone on power-up was not enough to prevent damage. ......
>
> I've contributed to that line of discussion in the past. Here is a basic approach to bringing up something on a variac: You MUST have an ammeter in line. Volts times Amperes equals Power (EI=W). If a radio uses 120 watts normally operating the line current will be one ampere, of course. If something is burning up in the receiver the ammeter would say "fire" if it could speak. In other words the current would not remain constant as components incinerate. Bringing up a rig on a variac requires constant monitoring of current until a state of stability is reached. When that occurs make note of the current. Allow the rig to "burn in"

for some hours while frequently checking the current reading. If things remain virtually constant for several hours after warm up you may be home free but burn in should last for a day or more as weakened components may decided to give up after a while. It's always a gamble that everything will come out OK with these ancient maritime relics but that's what the soldering iron was invented for. Good luck!
>
>
> Arden Allen
> Classical Audio Service
> 735 6th. St.
> Vallejo, CA 94590
> 707-553-2361
> audioservice at pacbell.net
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

From wb3fau55 at neo.rr.com Tue Oct 13 19:10:30 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Tue, 13 Oct 2015 19:10:30 -0400
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <CAB55hNf9SbbxvYSOKBAaxFoiR9yPvwvDUQq-sQHbDK6Mokdacg@mail.gmail.com>
Message-ID: <20151013231031.F8SPE.14764.root@cdptpa-web26>

Guys easier than a bulb in series with the line, just under-fuse your output. If you got a 5 amp variac and your radio, or whatever, draws amp or 2, fuse the variac at 2amps. I think we all have BAs that are not always in use. So if it sits for a few months, a slow start on the variac is good.
But an old item in need of caps needs more than a slow start. 73s Russ.
---- Nick England via BoatAnchors <boatanchors at theporch.com> wrote:
> Hi John - I believe the main worry is that the electrolytic capacitor
> may not reform as you bring it up on the variac - the resulting
> continuing short across the B+ could lead to burning out the B+
> winding on the power transformer.
> So if you are an electrolytic reformer (which I am - some other folks
> lack the faith) you should disconnect the electrolytics and reform
> them first from a separate DC supply. And while you're at it check for
> shorts on the B+ line.
>
> A similar worry is a shorted/leaky coupling cap cause the following
> tube to draw current like crazy and put a great strain on the power
> xfmr as you bring it up. Any capacitor is easier to replace than an
> unobtainium power xfmr.
>
> Another recommendation is even when using a variac, stick an

> incandescent bulb in series with the set under test to limit current.
>
> Nick England K4NYW
> www.navy-radio.com
>
>
> On Tue, Oct 13, 2015 at 11:08 AM, John Sehring via BoatAnchors
> <boatanchors at theporch.com> wrote:
> > Someone wrote about rescucitating BA's here on the list.
> >
> > I recall mention use of Variac alone on power-up was not enough to prevent damage.
> > Did I save that message? No, of course not, it only re-occurred to me later!
> > So would that poster (and/or others) please chime in?
> > I've got some pretty heavy duty iron in the wake-up que here, e.g. NC-303, R-390A, CR-88, GSB-100 so I need to be very much on my toes in my "ER"..
> > Kinda makes me think about science fiction & people frozen for ultra-long space flights while in suspended animation.
> > As always, thank you for your attention.
> > --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
> > ____
> > BoatAnchors mailing list
> > BoatAnchors at theporch.com
> > https://minime.theporch.com/mailman/listinfo/boatanchors
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

From 1oldlens1 at ix.netcom.com Tue Oct 13 19:44:00 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Tue, 13 Oct 2015 16:44:00 -0700
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <20151013231031.F8SPE.14764.root@cdptpa-web26>
References: <20151013231031.F8SPE.14764.root@cdptpa-web26>
Message-ID: <561D9740.7070903@ix.netcom.com>

I think the problem with this is that is has no margin for normal inrush. Remember that cold filaments draw a lot of current until they begin to heat. Also, if the rig has a capacitor input power supply filter it will draw a lot of current until the cap gets charged. Not a problem with choke input filters but they are found more often in transmitters than receivers. Typically, line fuses are double the normal current, which may be too much to prevent damage if there is a short. The bulb is a current limiter and will tell you if there is really excessive current. A metered Variac will also provide some protection if you are fast on the switch. Another way of protecting equipment is to connect it through a constant voltage transformer like a Sola, these shut down very quickly if the output is shorted or draws excessive current.

Of course, the best protection is just to anticipate the common problems, like leaky filter caps, and test or just replace them.

I am not very enthusiastic about reforming electrolytics; it can work but the caps are usually available and much cheaper than the other components they can ruin such as a power tranformer.

On 10/13/2015 4:10 PM, Russ Dworakowski WB3FAU via BoatAnchors wrote:
> Guys easier than a bulb in series with the line, just under-fuse your output. If you got a 5 amp variac and your radio, or whatever, draws amp or 2, fuse the variac at 2amps. I think we all have BAs that are not always in use. So if it sits for a few months, a slow start on the variac is good.
>   But an old item in need of caps needs more than a slow start. 73s Russ.
> ---- Nick England via BoatAnchors <boatanchors at theporch.com> wrote:
>> Hi John - I believe the main worry is that the electrolytic capacitor
>> may not reform as you bring it up on the variac - the resulting
>> continuing short across the B+ could lead to burning out the B+
>> winding on the power transformer.
>> So if you are an electrolytic reformer (which I am - some other folks
>> lack the faith) you should disconnect the electrolytics and reform
>> them first from a separate DC supply. And while you're at it check for
>> shorts on the B+ line.
>>
>> A similar worry is a shorted/leaky coupling cap cause the following
>> tube to draw current like crazy and put a great strain on the power
>> xfmr as you bring it up. Any capacitor is easier to replace than an
>> unobtainium power xfmr.
>>
>> Another recommendation is even when using a variac, stick an
>> incandescent bulb in series with the set under test to limit current.
>>
>> Nick England K4NYW
>> www.navy-radio.com
>>
>>
>> On Tue, Oct 13, 2015 at 11:08 AM, John Sehring via BoatAnchors
>> <boatanchors at theporch.com> wrote:
>>> Someone wrote about rescucitating BA's here on the list.
>>>
>>> I recall mention use of Variac alone on power-up was not enough to prevent damage.
>>> Did I save that message? No, of course not, it only re-occurred to me later!
>>> So would that poster (and/or others) please chime in?
>>> I've got some pretty heavy duty iron in the wake-up que here, e.g. NC-303, R-390A, CR-88, GSB-100 so I need to be very much on my toes in my "ER"..

>>> Kinda makes me think about science fiction & people frozen for ultra-long space flights while in suspended animation.
>>>   As always, thank you for your attention.
>>> --John Sehring VE6EQR-WB0EQ nr Calgary, Alberta, Canada
>>> ____
>>> BoatAnchors mailing list
>>> BoatAnchors at theporch.com
>>> https://minime.theporch.com/mailman/listinfo/boatanchors
>> ____
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From 1oldlens1 at ix.netcom.com Tue Oct 13 19:47:00 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Tue, 13 Oct 2015 16:47:00 -0700
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
Message-ID: <561D97F4.8040906@ix.netcom.com>

I don't know and shouldn't answer but my guess is that the clock motors are the same and the difference is in the reduction gears.
For more see: http://telechronclock.com/

On 10/11/2015 10:44 AM, Guido Santacana via BoatAnchors wrote:
> Does anyone know what is the type of rotor used in the Hammarlund Telechron 12hr clock versus the 24hr clock or is it the same type?
>
> Thanks and 73s
>
> Guido Santacana KP4FAR
>
> Sent from my iPad
> ____
> BoatAnchors mailing list

> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From franklin6209 at att.net Tue Oct 13 19:59:30 2015
From: franklin6209 at att.net (Gary Franklin)
Date: Tue, 13 Oct 2015 19:59:30 -0400
Subject: [BoatAnchors] Johnson Electronic TR Switch
Message-ID: <561D9AE2.8040204@att.net>

I am using a Johnson TR switch which works well my Johnson Desk Kilowatt, however receiver sensitivity is down quite a bit on 75 meters. 40 meters works very well.   Haven't tried any other bands. I have played a bit with the length of coax between the switch and the amplifier without success. Disconnect the amplifier and the sensitivity jumps up about 6 DB.   Is there a magic length?   Problem with the switch?

Gary K8BKB

From gsantacanav at gmail.com Tue Oct 13 21:12:09 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Tue, 13 Oct 2015 21:12:09 -0400
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <561D97F4.8040906@ix.netcom.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
 <561D97F4.8040906@ix.netcom.com>
Message-ID: <CAO1yix3ErUY=7otSCC3_g378--u0gDK8jPEog9s5xkGROaTkDw@mail.gmail.com>

You are right. they all run at the same rpm and the reduction gear makes the difference but sizes and position of the shaft with the small tooth gear vary. I asked the guy from the Telechron site if he knew the specific motor for the Hammarlund clock but he doesn't know. The site is great BTW and has a lot of info on the wonderful electromechanical design of the rotors. I may try lubricating it even if it is tedious. I did it with the 24hr clock of the HQ180A and it worked. The process involved removing the rotor from the clock, heating it carefully so that the old internal oil liquifies and comes out through the expanded shaft bushing. Then after removing as much old oil as possible you pour synthetic oil in the expanded shaft. As the rotor cools it will create a vacuum that will start sucking the oil in so you will have to keep adding. This resolved a sticking

problem that I had with that rotor but the process was messy and took quite
sometime. Some people have tried opening a small lubrication hole in the
rotor but that requires drilling and some metal filings can get into the
mechanism as a result.

Best 73s

Guido

Guido Santacana KP4FAR

On Tue, Oct 13, 2015 at 7:47 PM, Richard Knoppow via BoatAnchors <
boatanchors at theporch.com> wrote:

>   I don't know and shouldn't answer but my guess is that the clock motors
> are the same and the difference is in the reduction gears.
> For more see: http://telechronclock.com/
>
>
> On 10/11/2015 10:44 AM, Guido Santacana via BoatAnchors wrote:
>
>> Does anyone know what is the type of rotor used in the Hammarlund
>> Telechron 12hr clock versus the 24hr clock or is it the same type?
>>
>> Thanks and 73s
>>
>> Guido Santacana KP4FAR
>>
>> Sent from my iPad
>> ____
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>
>>
> --
> Richard Knoppow
> 1oldlens1 at ix.netcom.com
> WB6KBL
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From k1lky68 at gmail.com Wed Oct 14 08:34:17 2015

From: k1lky68 at gmail.com (Roy Morgan)
Date: Wed, 14 Oct 2015 08:34:17 -0400
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <E31CD21D-FAEA-4D21-A545-14F3BD36DBB1@gmail.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
 <50B2EB6A-D364-4349-8FB3-5E12D59CA59A@gmail.com>
 <E31CD21D-FAEA-4D21-A545-14F3BD36DBB1@gmail.com>
Message-ID: <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>

On Oct 11, 2015, at 7:19 PM, Guido Santacana <gsantacanav at gmail.com> wrote:
>
> I like old electric clocks. They are quite reliable. Then main clock in the shack is a Mastercrafters amateur/sw 24hr clock. It keeps excellent time.

Guido,

I have here an electric clock that my parents used in the 1940?s or possibly earlier. It?s case and glass are cracked, but I intend to overhaul and run the thing. I also have a slightly ?younger? clock I used in the 1950?s and expect to overhaul that one, too.

I?ll try the heat and cool process of changing the oil in the motor, along with a normal clean and lubricate process on the rest of the mechanism.

As to accuracy, the things operate on 60 cycles, and here in the US, the power frequency is held to rather amazing accuracy, and though it might drift up and down a slight bit, I think that the overall long term accuracy is quite astounding. I remember watching my clock keep right on the second time over many months compared to WWV time broadcasts.

Roy

Roy Morgan
k1lky68 at gmail.com
K1LKY Since 1958

From 1oldlens1 at ix.netcom.com Wed Oct 14 13:38:08 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 14 Oct 2015 10:38:08 -0700
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
 <50B2EB6A-D364-4349-8FB3-5E12D59CA59A@gmail.com>
 <E31CD21D-FAEA-4D21-A545-14F3BD36DBB1@gmail.com>
 <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>

Message-ID: <561E9300.3040905@ix.netcom.com>

BTW, there was a time when some parts of the US had 50Hz current. In this area (Los Angeles) the city Department of Water and Power supplied 60Hz but the small privately owned companies in cities like Burbank and Glendale had 50Hz generators. Electric clocks were available for both frequencies. Warner Brothers, in their main Burbank studio had motor-generators to convert the 50Hz power to 60Hz for the RCA sound recording equipment which used synchronous motors. A very few places had 25Hz current but AFAIK no electric clocks were made for it. I remember visiting the Canadian side of Niagra Falls when I was a kid, the local power was 25Hz causing lights to flicker very noticably. Some radios were built to work on this current but not many. 25 Hz was not much used domestically but was widely used for industrial purposes since the losses are less. The Pennsylvania Railroad electric railways worked on 25 Hz as did many street railways (street cars).

I have found electric clock motors that rattled. The rotors had started to crumble. At least a couple of times I was able to pry the cases apart, blow them out, and reassemble them to working condition.

On 10/14/2015 5:34 AM, Roy Morgan via BoatAnchors wrote:
> On Oct 11, 2015, at 7:19 PM, Guido Santacana <gsantacanav at gmail.com> wrote:
>> I like old electric clocks. They are quite reliable. Then main clock in the shack is a Mastercrafters amateur/sw 24hr clock. It keeps excellent time.
> Guido,
>
> I have here an electric clock that my parents used in the 1940?s or possibly earlier. It?s case and glass are cracked, but I intend to overhaul and run the thing. I also have a slightly ?younger? clock I used in the 1950?s and expect to overhaul that one, too.
>
> I?ll try the heat and cool process of changing the oil in the motor, along with a normal clean and lubricate process on the rest of the mechanism.
>
> As to accuracy, the things operate on 60 cycles, and here in the US, the power frequency is held to rather amazing accuracy, and though it might drift up and down a slight bit, I think that the overall long term accuracy is quite astounding. I remember watching my clock keep right on the second time over many months compared to WWV time broadcasts.
>
> Roy
>
> Roy Morgan
> k1lky68 at gmail.com
> K1LKY Since 1958
>
> ____
> BoatAnchors mailing list

> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From knjhanlon at msn.com Wed Oct 14 14:29:24 2015
From: knjhanlon at msn.com (JAMES HANLON)
Date: Wed, 14 Oct 2015 12:29:24 -0600
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
Message-ID: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>

Guido and gang,

While I appreciate your advice to start the resuscitation job by replacing all paper and electrolytic caps, my own experience in restoring more than 40 BA receivers says that this may be overkill. I've found only four receivers where this advice was appropriate, a BC-348, an SX-43, an SP-600 JX, and a BC-453.

Almost all BC348s have paper caps molded inside of a plastic case. A few years after they were made, those caps were notorious for swelling, breaking the case open, and shorting. They had a very short time to end of life.

The SX-43 had ordinary paper caps impregnated with wax. There was corrosion evidence on several other parts including the tuning capacitor that the receiver had lived in a very humid environment for a good while. And most of the paper caps went into failure as I was restoring it, so I replaced them all.

The SP-600 was built with "black beauty" caps, which I believe were paper caps molded inside of a plastic body. They were again notorious for failing shorted. Over the span of a couple of years I replaced all of them, a rather interesting job considering that Hammarlund hid a good many of them inside of IF cans and such.

The BC-453 (Q-5er) I use along with a BC-454 and a BC-455 to form a triple-conversion superhet on 80 and 40 meters. The BC-453 was made by Western Electric as was the BC-454. The BC-455 was made by Colonial Radio. Over a span of about five years, starting about 10 years ago, all of the bypass caps enclosed in those round metal cans in the BC453 failed shorted. It really was an "end-of-life" progression for those parts. In contrast, I've not experienced any failures of the same caps in either the 454 or 455. I can only surmise that Western Electric was using a weak lot of caps when they built that particular receiver.

My other receivers include sets that go back to the early 1930s, specifically an

SW-3, FB7A, and FBX. They are all, for the most part, still operating just fine with their original paper bypass capacitors. (This is not true for the electrolytics - most of them have been replaced.) I do live in New Mexico where the ambient humidity is low, many days around 20%, so this may be helping to extend the lives of the capacitors. But my overall conclusion is that most of the ordinary, wax impregnated paper bypass capacitors that I have run across have not yet reached end-of-life. As I rather like leaving my BA equipment in as close to original condition as possible, I do not routinely replace these caps unless they are of a type - BC348 molded caps or SP-600 black beauties - that are known to have short life.

Jim Hanlon, W8KGI

From nbroline at austin.rr.com Wed Oct 14 14:43:24 2015
From: nbroline at austin.rr.com (Nick Broline)
Date: Wed, 14 Oct 2015 13:43:24 -0500
Subject: [BoatAnchors] BA Rescucitation...and long
In-Reply-To: <mailman.501.1444779879.247.boatanchors@theporch.com>
References: <mailman.501.1444779879.247.boatanchors@theporch.com>
Message-ID: <C1E0B9B2BE324A76991851C02F7C61B8@newdualath>

The method I use for breathing life into a BA starts with a "pre-power up" step that saves the me from the anxiety in applying low, current limited line voltage at the git-go and then (frantically) look for telltale signs of component failures, hoping I didn't miss one! No tubes, except VR tubes, need be pulled. Cold tubes do not draw plate or screen current. This method allows me to safely identify and repair power supply component failures and to verify that even the 2nd tier B+ circuits are good without bad things happening. It does not eliminate open or low value electrolytics or paper caps, but it assures me that I have little chance of killing the power transformer when it is first energized.

Initial Tests.

I initially check out BA's without getting near the line cord by slowly applying B+ to convenient points.....say the input to the first filter cap (+) and the HV winding center tap (-). I have a couple 0-250V/0-160ma regulated, current limited and metered bench supplies that allow me observe what is going on within the B+ distribution circuit of the BA vs. voltage. I set the current limit to something safe, such as 20-50ma, and bring the voltage up from zero. I use the standard reforming protocol with one exception. When the current from the supply stabilizes for a given voltage I calculate the apparent resistance, hoping it will approach an open circuit or the bleeder resistance (unlikely). I continue this process at higher and higher voltages until I'm running well above the rated B+ voltage and the current is near zero and stable. I also remove the bench supply while monitoring the B+ voltage and watch how it decays. If it drops like a rock I am assured the filters are nearly open.

Second Tier Circuits.

When the normal B+ is applied and the set has rested for a day or so at that level I start checking out low-level loads by measuring voltages throughout the set. For instance, a VTVM measuring a positive voltage on the grid voltage of an audio output tube says the coupling cap is leaky (or heaven forbid, the socket). The screen voltage on IF or RF stages must be equal to the B+ voltage or something set by a resistive voltage divider. If it is not then there is a good chance the screen bypass is leaky or shorted. I also take a look at the AVC line (s) to make sure they are not being pulled high by leakage.
Then.
I leave it to you to evaluate components that are not energized by B+, such as the caps on the HV winding and line-to-ground. That has been covered very competently in prior posts. After those verifications it is quite safe to bring up the set using the these processes.
A bench supply for B+ and a variac to control filaments allows me to evaluate the margin I have in the tube line-up by dropping the filament voltage as well as determine the B+ voltage the set REALLY needs by lowering the voltage and checking performance. Adjusting operating point of self-contained sets may be awkward, but BA's without a built-in supply cry for it. It is reassuring to know I have plenty of margin....or find out why I don't!

I know that everyone does not have solid state 0-250V regulated supply on the bench, but I also use a variac controlled and metered home brew HV supply close at hand.....and another variac, current limited and metered line voltage source with a low-current fuse in case something goes "band" in the night.
73
Nick Broline W5FUA

We shall not cease from exploration
And at the end of exploring
Will be to arrive where we started
And know the place for the first time.
T.S. Eliot--"Little Gidding"

From w9ac at arrl.net Wed Oct 14 15:03:41 2015
From: w9ac at arrl.net (Paul Christensen)
Date: Wed, 14 Oct 2015 15:03:41 -0400
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
In-Reply-To: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
Message-ID: <00ca01d106b3$0c0f0a80$242d1f80$@arrl.net>

Jim,

To your point about the early National sets, I've never had a need to replace any caps in the SW or FB series receivers. That's ten sets in total.

Because of the pre-war HRO and NC's more complicated architecture, I've found that cap replacement has been compulsory on the six sets I've owned.

Concerning the SW-3, I would not be surprised if these jewels perform without failure for another 80+ years, provided tube seals remain intact.

I recall a phone conversation with Bruce Kelly back in 1990. I had just started collecting old gear and wanted an early "shortwave" set. Just using that word, resulted in about a 30 minute explanation of why the term evolved until about 1930. Bruce's suggestion for an early ham "shortwave" receiver was the SW-3. Each time I use one, I'm still blown away with the performance from three tubes and a random length of wire.

Paul, W9AC

-----Original Message-----
From: BoatAnchors [mailto:boatanchors-bounces at theporch.com] On Behalf Of
JAMES HANLON via BoatAnchors
Sent: Wednesday, October 14, 2015 2:29 PM
To: boatanchors <boatanchors at minime.theporch.com>; gsantacanav at gmail.com
Subject: Re: [BoatAnchors] [boatanchors] Rescucitation of BA's

Guido and gang,

While I appreciate your advice to start the resuscitation job by replacing all paper and electrolytic caps, my own experience in restoring more than 40 BA receivers says that this may be overkill. I've found only four receivers where this advice was appropriate, a BC-348, an SX-43, an SP-600 JX, and a BC-453.

Almost all BC348s have paper caps molded inside of a plastic case. A few years after they were made, those caps were notorious for swelling, breaking the case open, and shorting. They had a very short time to end of life.

The SX-43 had ordinary paper caps impregnated with wax. There was corrosion evidence on several other parts including the tuning capacitor that the receiver had lived in a very humid environment for a good while. And most of the paper caps went into failure as I was restoring it, so I replaced them all.

The SP-600 was built with "black beauty" caps, which I believe were paper caps molded inside of a plastic body. They were again notorious for failing shorted. Over the span of a couple of years I replaced all of them, a rather interesting job considering that Hammarlund hid a good many of them inside of IF cans and such.

The BC-453 (Q-5er) I use along with a BC-454 and a BC-455 to form a triple-conversion superhet on 80 and 40 meters. The BC-453 was made by Western Electric as was the BC-454. The BC-455 was made by Colonial Radio. Over a span of about five years, starting about 10 years ago, all of the bypass caps enclosed in those round metal cans in the BC453 failed shorted. It really was an "end-of-life" progression for those parts. In contrast, I've not experienced any failures of the same caps in either the 454 or 455. I can only surmise that Western Electric was using a weak lot of caps when they built that particular receiver.

My other receivers include sets that go back to the early 1930s, specifically an SW-3, FB7A, and FBX. They are all, for the most part, still operating just fine with their original paper bypass capacitors. (This is not true for the electrolytics - most of them have been replaced.) I do live in New Mexico where the ambient humidity is low, many days around 20%, so this may be helping to extend the lives of the capacitors. But my overall conclusion is that most of the ordinary, wax impregnated paper bypass capacitors that I have run across have not yet reached end-of-life. As I rather like leaving my BA equipment in as close to original condition as possible, I do not routinely replace these caps unless they are of a type - BC348 molded caps or SP-600 black beauties - that are known to have short life.

Jim Hanlon, W8KGI

____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From gumbear at pacbell.net Wed Oct 14 15:05:38 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 14 Oct 2015 12:05:38 -0700
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
In-Reply-To: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
Message-ID: <BEC988981C764C06BD398416BBF5FDA6@KB6NAX>

> ....I do live in New Mexico where the ambient humidity is low, many
> days around 20%, so this may be helping to extend the lives of the
> capacitors. ....

Absolutely, Jim. The same reason airplane junk yards are in your neck of the cactus lands. Here in the San Francisco bay area where the humidity is moderate to high black ugly caps are often found cracked open. The heavily waxed MicaMold rectangular plastic encased paper jobs don't last either. Waxy cardboard enclosed caps are virtual dead shorts and can only can live on in parallel with a cathode resistor of a couple of K-ohms or less. The only paper caps that really last are the military grade types inside metal-glass hermetically sealed encasements, the types the audiophoole capacitor cartels sell on the eSwamp for big dinero. Wish me luck on re-doing my SP-600 which had no shorting caps when I got it in '86. I'm afraid to power it up now.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From 1oldlens1 at ix.netcom.com Wed Oct 14 15:39:50 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 14 Oct 2015 12:39:50 -0700
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
In-Reply-To: <BEC988981C764C06BD398416BBF5FDA6@KB6NAX>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
 <BEC988981C764C06BD398416BBF5FDA6@KB6NAX>
Message-ID: <561EAF86.7090303@ix.netcom.com>

It would seem that the Sprague Black Beauty capacitors (a trade name) as first manufactured had some sort of serious manufacturing defect. These were supposed to be high quality, long life, caps for rugged duty. They were in molded plastic cases which were oil filled through a tube which became one of the leads after filling. One problem was that the filler tube could develop a leak if the lead was soldered at too high a temperature. The oil came out and the cap was no longer protected. These caps are often cracked or are missing parts of the case, which break off. The should be replaced on sight. Most paper caps have limited lives because of the effective of the charge on the paper. Oil filled caps have a much longer life than those sealed with wax but all are limited.

Paper caps should be tested for leakage. Leakage is _parallel_ resistance. Many cap testers test only for series resistance. A cap can have low series resistance and correct capacitance and still be leaky. One problem is that you can't measure parallel resistance with the cap connected, you really must lift one end. Leakage can be measured with a leakage tester as included in many capacitance testers,

or with an ohm meter which will measure very high values of resistance. The General Radio Megohm meters and instruments like the Biddle resistance tester will measure it but apply too high a voltage for many capacitors. The standard for measuring insulation leakage in machinery is 500 Volts. Some ohm meters, like the Hewlett-Packard 410-B and C and 412 will measure very high values of resistance at low voltages and will often spot leaky caps. Remember, caps are supposed to block DC, if they are leaky they pass some of it screwing up subsequent circuits. No cap is immune and none should be considered as beyond suspicion, but not all old caps need to be replaced.
On 10/14/2015 12:05 PM, Arden Allen via BoatAnchors wrote:
>> ....I do live in New Mexico where the ambient humidity is low,
>> many days around 20%, so this may be helping to extend the lives of
>> the capacitors. ....
>
> Absolutely, Jim. The same reason airplane junk yards are in your neck
> of the cactus lands. Here in the San Francisco bay area where the
> humidity is moderate to high black ugly caps are often found cracked
> open. The heavily waxed MicaMold rectangular plastic encased paper
> jobs don't last either. Waxy cardboard enclosed caps are virtual dead
> shorts and can only can live on in parallel with a cathode resistor of
> a couple of K-ohms or less. The only paper caps that really last are
> the military grade types inside metal-glass hermetically sealed
> encasements, the types the audiophoole capacitor cartels sell on the
> eSwamp for big dinero. Wish me luck on re-doing my SP-600 which had no
> shorting caps when I got it in '86. I'm afraid to power it up now.
>
> Arden Allen
> KB6NAX
>
> He who is cruel to animals becomes
> hard also in his dealings with men.
> We can judge the heart of a man by
> his treatment of animals.
> ?Immanuel Kant
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From gumbear at pacbell.net Wed Oct 14 15:41:55 2015

```
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 14 Oct 2015 12:41:55 -0700
Subject: [BoatAnchors] BA Rescucitation...and long
In-Reply-To: <C1E0B9B2BE324A76991851C02F7C61B8@newdualath>
References: <mailman.501.1444779879.247.boatanchors@theporch.com>
 <C1E0B9B2BE324A76991851C02F7C61B8@newdualath>
Message-ID: <B709C3EB8B524DEA952F62FD5B30BC45@KB6NAX>
```

> The method I use for breathing life into a BA starts with a "pre-power up" step that saves the me from the anxiety in applying low, current limited line voltage at the git-go and then (frantically) ....

That's a good laundry list, Nick, of ways to keep the smoke inside the components. My start-up procedure is a bit different in that I first remove the rectifier tube (if the unit is so equipped) and check the power transformer winding voltages. Good tranny I move forward. Next I check electrolytic ESR's and then check them for shorts. Open 'lytics are not important for the next test because they are out of circuit for all practical purposes. I remove all tubes and replace the rectifier. Then I bring up line voltage to usually 60 volts AC. As the rectifier slowly begins to conduct I start checking B+ points guided by the schematic. If voltages settle to steady values I know electrolytics are possibly OK for starters. I raise the line voltage usually to 75 and then 90 as voltages follow and again settle. Along the way I may be exceeding the voltage ratings of down stream 'lytics so I can't go up further. Because there are no tubes but the rectifier it's easy to detect warming of 'lytics due to high leakage, the procedure taking up to several hours. If I feel warmth I back off line voltage. Line current will drop gradually as caps reform so I leave things alone until line current drops no further, usually after several hours to be safe. An electrolytic does not to experience full rated voltage to be satisfactorily reformed, it's more about the time being reformed than the forming voltage because the forming process is primarily current dependent. When I get to the state of knowing which 'lytics to replace that's the next job. With open and suspect caps replaced I look for way out resistors to replace, some times many in a rig. Finally I can install all of the tubes and begin operational testing and tweaking with the incumbent head scratching.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From gumbear at pacbell.net Wed Oct 14 16:19:53 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Wed, 14 Oct 2015 13:19:53 -0700
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
In-Reply-To: <561EAF86.7090303@ix.netcom.com>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
 <BEC988981C764C06BD398416BBF5FDA6@KB6NAX> <561EAF86.7090303@ix.netcom.com>
Message-ID: <FEAE27B8C267472085949462DD1D56A3@KB6NAX>

> It would seem that the Sprague Black Beauty capacitors (a trade name) as first manufactured had some sort of serious manufacturing defect. These were supposed to be high quality, long life, caps for rugged duty.

Actually, Rich, Sprague made many quality levels of tubular molded capacitors. Unfortunately I was unable to find catalog literature that gave more detail about their various capacitor lines. Design engineers are guilty of throwing out the literature that would be welcomed in technology history libraries, why it's so difficult to find these days.

"Black Beauty" belonged to CDE, not Sprague, I believe.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From knjhanlon at msn.com Wed Oct 14 16:37:52 2015
From: knjhanlon at msn.com (JAMES HANLON)
Date: Wed, 14 Oct 2015 14:37:52 -0600
Subject: [BoatAnchors] SP-600 capacitors
Message-ID: <BLU184-W54B72C5A0AF860A5BCDD9DA03F0@phx.gbl>

Arden,

I do indeed wish you luck with your SP-600. I acquired mine more than 26 years ago - that was when I moved to New Mexico - from a "friend" in Coluimbus, Ohio. He told me that it was working but had low gain and that I would have no trouble fixing it. (He had great confidence in me.) To make a long story short, I wound up replacing all of the bypass caps in the receiver over a couple of years. Some were easy to find, but quite a few were well hidden. The ones inside of the IF transformer cans would short and then burn out the series decoupling resistors, also inside the can as I recall. I tumbled to what was going on by noting that there was good B+ measured on the input lead to the IF transformer but nothing on the associated tube socket plate lead. The most "interesting" replacement as I recall was of a cap hidden inside the shielded second conversion stage. That shield hangs like a wart off the side of the main receiver frame, beside the power supply module. I had to remove the power supply module to get to the second conversion shield and open it up. Sure enough, the shorted cap was inside. It took a fair amount of elbow grease, but the resulting working SP600 was worth the effort.

Maybe you'll get lucky and find disc ceramic bypass caps - I hope so.

73,

Jim

From john.shriver at gmail.com Wed Oct 14 16:39:06 2015
From: john.shriver at gmail.com (John Shriver)
Date: Wed, 14 Oct 2015 16:39:06 -0400
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <561E9300.3040905@ix.netcom.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
 <50B2EB6A-D364-4349-8FB3-5E12D59CA59A@gmail.com>
 <E31CD21D-FAEA-4D21-A545-14F3BD36DBB1@gmail.com>
 <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>
 <561E9300.3040905@ix.netcom.com>
Message-ID: <CAEv8c7GxPF7hnrTO6dVQ31DY1YsEG7BzBy3acmQCDfVftZ8DyQ@mail.gmail.com>

Ah, 25 cycle power.

It was popular at first because they could make transformers that worked well at 25 cycles, but not at 60 cycles. It took silicon steel to make transformer cores that worked well at 60 cycles without excessive losses (eddy currents?). After they could do 60 cycle transformers, they were popular as they were much smaller. (Just as planes used 400 cycle power for even smaller transformers. I still remember the 400 cycle whine on the PA on older planes.)

I think they also settled on 25 cycle frequency for Niagara Falls power plants because it worked well with the speed the turbines wanted to turn at. The area around Niagara was definitely the hub of 25 cycle power in the US.

Another reason for using 25 cycle power in transit systems is that it was easier to make it into DC for the third rail or overhead wire using rotary convertors. These were huge motor-generators, with one armature winding for synchronous AC (with slip rings on one side) and one set of armature windings for DC (with a commutator on the other side). The synchronous motor part was happier at 25 cycles. The commutator was really the rectifier. The MBTA in Boston used many rotary convertors into the 1980s, probably the same in New York.

Ignitron rectifiers (boat-anchor context) are what put an end to installing new rotary convertors. Of course now Silicon diodes are used.

The MBTA still distributes 25 cycle power for the signal system on the Green Line streetcar subway, which uses "tuned relays" tuned to 25 cycles for occupancy detection for the signal system. But they have a solid-state frequency convertor to supply it. But they had to provide full-power 25 cycle power to the entire system until they shut down the last rotary convertor.

The Pennsylvania Railroad and New Haven Railroad electrifications also used 25 cycle power. They mostly used universal motors (with brushes and wound field coils), which are AC/DC motors. Those motors preferred lower frequencies when they ran on AC power. (There were also some early synchronous motors for freight use, but they tended to start so suddenly that they could splinter a wood boxcar.) Later electric freight locomotives used ignitrons and DC motors.

Both railroads had their own power plants. The New Haven is now 60 Hz, since the power plant at Cos Cob expired of old age some years ago, and now uses commercial power. The Pennsylvania electrification (now Amtrak) is still 25 cycle. Current Amtrak locomotives can run on 11230 volts/25 cycles, 12500 volts/60 Hz, and 25000 volts/60 Hz.

More on Amtrak 25 cycle power:
https://en.wikipedia.org/wiki/Amtrak%27s_25_Hz_traction_power_system

From 1oldlens1 at ix.netcom.com Wed Oct 14 16:39:52 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 14 Oct 2015 13:39:52 -0700
Subject: [BoatAnchors] [boatanchors] Rescucitation of BA's
In-Reply-To: <FEAE27B8C267472085949462DD1D56A3@KB6NAX>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
 <BEC988981C764C06BD398416BBF5FDA6@KB6NAX> <561EAF86.7090303@ix.netcom.com>
 <FEAE27B8C267472085949462DD1D56A3@KB6NAX>
Message-ID: <561EBD98.8050006@ix.netcom.com>

"Black Beauty" was a Sprague trade name. They also sold a similar capacitor as a "Telecap" for television use. The caps found in the SP-600 with stripes is the same cap but with the value coding marks used at the time. They indicate the value and voltage. I was a teen at the time these started gong bad and was told by an electronic engineer friend then that they should be avoided. Same with Micamold but I think they had stopped making caps by then. All the BB caps I've dissected had distorted windings. I doubt it was done at the factory to adjust the value although that's one method. I think something happened to the molded cases. Sprague advertised these as using plastic impregnated paper. The paper does seem to have some sort of coating or impregnant. AFAIK Cornell-Dublier caps were quite reliable as were Sangamo. All of these companies made caps of many kinds. The old "Radio's Master" compilation catalogs make it possible to compare prices, at least retail prices. They are very much the same for a given value and voltage. The most expensive caps were the Plasticon caps, an early plastic dielectric cap. These were at least ten times the price of the paper kind. I've never seen one in a piece of equipment. The company is still in business but could not tell me anything about the construction of the 1950s caps.

Solar was another major capacitor manufacturer. They seem to have vanished in the early 1950's. One edition of the "Radio's Master" indicates they had reserved space for catalog sheets but they were never printed and the name absolutely vanishes later. I've some what research I can but can't find out anything definite. Surely the trade magazines of business journals would tell the story but I would not do that sort of research for anything less than a master's thesis or maybe a lot of money.

On 10/14/2015 1:19 PM, Arden Allen wrote:
>> It would seem that the Sprague Black Beauty capacitors (a trade
> name) as first manufactured had some sort of serious manufacturing
> defect. These were supposed to be high quality, long life, caps for
> rugged duty.
>
> Actually, Rich, Sprague made many quality levels of tubular molded
> capacitors. Unfortunately I was unable to find catalog literature
> that gave more detail about their various capacitor lines. Design
> engineers are guilty of throwing out the literature that would be
> welcomed in technology history libraries, why it's so difficult to
> find these days.
>
> "Black Beauty" belonged to CDE, not Sprague, I believe.
>
> Arden Allen
> KB6NAX
>
> He who is cruel to animals becomes
> hard also in his dealings with men.
> We can judge the heart of a man by
> his treatment of animals.
> ?Immanuel Kant

>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From 1oldlens1 at ix.netcom.com Wed Oct 14 17:03:47 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 14 Oct 2015 14:03:47 -0700
Subject: [BoatAnchors] SP-600 capacitors
In-Reply-To: <BLU184-W54B72C5A0AF860A5BCDD9DA03F0@phx.gbl>
References: <BLU184-W54B72C5A0AF860A5BCDD9DA03F0@phx.gbl>
Message-ID: <561EC333.4030701@ix.netcom.com>

FWIW, Hammarlund went to disc ceramic caps because they were very reliable. There was a military modification work order for the receiver which required all of the paper caps to be changed to disc ceramics. There are 42 in standard versions of the receiver, some in the IF cans and others in the RF deck. It takes a lot of work to replace them all. I think modern plastic film caps are probably better than the disc ceramics used in the original modification. The electrolytic bypass caps are now very old and I have had to replace some. Often the first sign is malfunction of the AVC. These are potted (but not oil filled) caps in cans. Some have cleaned out the cans and restuffed them. I tried that once and decided I didn't need the cosmetic effects enough to justify it. New caps can be installed on terminal strips fastened with the screws used for the cans. If you are replacing the paper caps you might as well replace the electrolytics too. New exact duplicate filter caps can be had from Hayseed Hamfest. A bad filter cap has many symptoms other than increased hum, such as lots of spurs and birdies. Its easy enough to check but, again, if you are rebuilding the set you might as well replace the filter cap too.

The SP-600 is a very fine receiver when working right but can be working even if its sick. I think a lot of the comlaints about them come from people who assume their receivers are in good shape when they are not. They are certainly worth the effort to rebuild.

A note and warning: Do NOT bend tuning capacitor plates. I know this is sometimes recommended but it will destroy the cap. Some of these caps need alighment because the stators, which are clamped to the frame, have drifted but fixing this is a matter of centering the stators in the rotor and not bending plates.

On 10/14/2015 1:37 PM, JAMES HANLON via BoatAnchors wrote:
> Arden,
>

> I do indeed wish you luck with your SP-600. I acquired mine more than 26 years ago - that was when I moved to New Mexico - from a "friend" in Coluimbus, Ohio. He told me that it was working but had low gain and that I would have no trouble fixing it. (He had great confidence in me.) To make a long story short, I wound up replacing all of the bypass caps in the receiver over a couple of years. Some were easy to find, but quite a few were well hidden. The ones inside of the IF transformer cans would short and then burn out the series decoupling resistors, also inside the can as I recall. I tumbled to what was going on by noting that there was good B+ measured on the input lead to the IF transformer but nothing on the associated tube socket plate lead. The most "interesting" replacement as I recall was of a cap hidden inside the shielded second conversion stage. That shield hangs like a wart off the side of the main receiver frame, beside the power supply module. I had to remo
>   ve the power supply module to get to the second conversion shield and open it up. Sure enough, the shorted cap was inside. It took a fair amount of elbow grease, but the resulting working SP600 was worth the effort.
>
> Maybe you'll get lucky and find disc ceramic bypass caps - I hope so.
>
> 73,
>
> Jim
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From gsantacanav at gmail.com Wed Oct 14 17:25:06 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Wed, 14 Oct 2015 17:25:06 -0400
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
Message-ID: <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>

Hi all

Jim's experience correlates well with his ambient humidity. In my case living in an island where 20% humidity never happens and the average is above 60% year round, paper cap replacement is a must. I have received radios with still sealed black beauties that in one year have developed cracks. I live miles from the coast and that had avoided having major problems with corrosion from salty air. My SP600 has been with me for 35 years an is in great shape and recapped of course. Even old micas are failing by now.

73s

Guido Santacana KP4FAR

On Wednesday, October 14, 2015, JAMES HANLON <knjhanlon at msn.com> wrote:
> Guido and gang,
>
> While I appreciate your advice to start the resuscitation job by replacing all paper and electrolytic caps, my own experience in restoring more than 40 BA receivers says that this may be overkill. I've found only four receivers where this advice was appropriate, a BC-348, an SX-43, an SP-600 JX, and a BC-453.
>
> Almost all BC348s have paper caps molded inside of a plastic case. A few years after they were made, those caps were notorious for swelling, breaking the case open, and shorting. They had a very short time to end of life.
>
> The SX-43 had ordinary paper caps impregnated with wax. There was corrosion evidence on several other parts including the tuning capacitor that the receiver had lived in a very humid environment for a good while. And most of the paper caps went into failure as I was restoring it, so I replaced them all.
>
> The SP-600 was built with "black beauty" caps, which I believe were paper caps molded inside of a plastic body. They were again notorious for failing shorted. Over the span of a couple of years I replaced all of them, a rather interesting job considering that Hammarlund hid a good many of them inside of IF cans and such.
>
> The BC-453 (Q-5er) I use along with a BC-454 and a BC-455 to form a triple-conversion superhet on 80 and 40 meters. The BC-453 was made by Western Electric as was the BC-454. The BC-455 was made by Colonial Radio. Over a span of about five years, starting about 10 years ago, all of the bypass caps enclosed in those round metal cans in the BC453 failed shorted. It really was an "end-of-life" progression for those parts. In contrast, I've not experienced any failures of the same caps in either the 454 or 455. I can only surmise that Western Electric was using a weak lot of caps when they built that particular receiver.
>

> My other receivers include sets that go back to the early 1930s,
specifically an SW-3, FB7A, and FBX. They are all, for the most part,
still operating just fine with their original paper bypass capacitors.
(This is not true for the electrolytics - most of them have been
replaced.) I do live in New Mexico where the ambient humidity is low, many
days around 20%, so this may be helping to extend the lives of the
capacitors. But my overall conclusion is that most of the ordinary, wax
impregnated paper bypass capacitors that I have run across have not yet
reached end-of-life. As I rather like leaving my BA equipment in as close
to original condition as possible, I do not routinely replace these caps
unless they are of a type - BC348 molded caps or SP-600 black beauties -
that are known to have short life.
>
> Jim Hanlon, W8KGI
>

From 1oldlens1 at ix.netcom.com Wed Oct 14 17:37:06 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Wed, 14 Oct 2015 14:37:06 -0700
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
 <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>
Message-ID: <561ECB02.3000501@ix.netcom.com>

Unfortunately, the old postage stamp mica caps suffer from the same
problems with the cases as the plastic encased paper ones do. I think
it is the Bakelite they used. Anyway, moisture gets in and ruins them.
The ones cased in dipped epoxy are pretty much immune to this. Leaving
equipment on all the time may help because the heat tends to dissipate
the moisture.

On 10/14/2015 2:25 PM, Guido Santacana via BoatAnchors wrote:
> Hi all
>
> Jim's experience correlates well with his ambient humidity. In my case
> living in an island where 20% humidity never happens and the average is
> above 60% year round, paper cap replacement is a must. I have received
> radios with still sealed black beauties that in one year have developed
> cracks. I live miles from the coast and that had avoided having major
> problems with corrosion from salty air. My SP600 has been with me for 35
> years an is in great shape and recapped of course. Even old micas are
> failing by now.
>
> 73s
>
> Guido Santacana KP4FAR

>
>
> On Wednesday, October 14, 2015, JAMES HANLON <knjhanlon at msn.com> wrote:
>> Guido and gang,
>>
>> While I appreciate your advice to start the resuscitation job by
> replacing all paper and electrolytic caps, my own experience in restoring
> more than 40 BA receivers says that this may be overkill. I've found only
> four receivers where this advice was appropriate, a BC-348, an SX-43, an
> SP-600 JX, and a BC-453.
>> Almost all BC348s have paper caps molded inside of a plastic case. A few
> years after they were made, those caps were notorious for swelling,
> breaking the case open, and shorting. They had a very short time to end of
> life.
>> The SX-43 had ordinary paper caps impregnated with wax. There was
> corrosion evidence on several other parts including the tuning
> capacitor that the receiver had lived in a very humid environment for a
> good while. And most of the paper caps went into failure as I was
> restoring it, so I replaced them all.
>> The SP-600 was built with "black beauty" caps, which I believe were paper
> caps molded inside of a plastic body. They were again notorious for
> failing shorted. Over the span of a couple of years I replaced all of
> them, a rather interesting job considering that Hammarlund hid a good many
> of them inside of IF cans and such.
>> The BC-453 (Q-5er) I use along with a BC-454 and a BC-455 to form a
> triple-conversion superhet on 80 and 40 meters. The BC-453 was made by
> Western Electric as was the BC-454. The BC-455 was made by Colonial
> Radio. Over a span of about five years, starting about 10 years ago, all
> of the bypass caps enclosed in those round metal cans in the BC453 failed
> shorted. It really was an "end-of-life" progression for those parts. In
> contrast, I've not experienced any failures of the same caps in either the
> 454 or 455. I can only surmise that Western Electric was using a weak lot
> of caps when they built that particular receiver.
>> My other receivers include sets that go back to the early 1930s,
> specifically an SW-3, FB7A, and FBX. They are all, for the most part,
> still operating just fine with their original paper bypass capacitors.
> (This is not true for the electrolytics - most of them have been
> replaced.) I do live in New Mexico where the ambient humidity is low, many
> days around 20%, so this may be helping to extend the lives of the
> capacitors. But my overall conclusion is that most of the ordinary, wax
> impregnated paper bypass capacitors that I have run across have not yet
> reached end-of-life. As I rather like leaving my BA equipment in as close
> to original condition as possible, I do not routinely replace these caps
> unless they are of a type - BC348 molded caps or SP-600 black beauties -
> that are known to have short life.
>> Jim Hanlon, W8KGI
>>
> ____

> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From gsantacanav at gmail.com Wed Oct 14 18:04:38 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Wed, 14 Oct 2015 18:04:38 -0400
Subject: [BoatAnchors] Hammarlund Clock
In-Reply-To: <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>
References: <8F3247B9-E4BA-49DE-ADA3-4E08119549C4@gmail.com>
 <50B2EB6A-D364-4349-8FB3-5E12D59CA59A@gmail.com>
 <E31CD21D-FAEA-4D21-A545-14F3BD36DBB1@gmail.com>
 <26277751-328A-41A0-BD98-A82BC4E0BBB5@gmail.com>
Message-ID: <2762BE11-E298-4292-8581-BD67ABC69F65@gmail.com>

Power here in the island is based on US standards of 120/240 VAC 60Hz so the electric clocks maintain excellent time. I also own a Howard Miller map clock that shows time everywhere in the world. Is a mechanical wonder that works with a time/map sheet moved by rollers. Just recently I replaced the time/map sheet that incredibly is still available new from Howard Miller. My other clock and a favorite is the Spilhaus Clock that shows local, world and the position of the stars, moon and Sun. It was designed back in the sixties for Edmund Scientific. It has been with me for years and still works like a charm. This one uses a Synchron motor. Although digital clocks are very accurate I still like to see the time cycles in a conventional clock.

There is a nice video in youtube describing the heat cool method for getting oil into the Telechron rotor. Search for it using Telechron rotor and it is the first one in the list.

Best 73s

Guido

Guido Santacana KP4FAR

Sent from my iPad

On Oct 14, 2015, at 8:34 AM, Roy Morgan <k1lky68 at gmail.com> wrote:

>
> On Oct 11, 2015, at 7:19 PM, Guido Santacana <gsantacanav at gmail.com> wrote:
>>
>> I like old electric clocks. They are quite reliable. Then main clock in the shack is a Mastercrafters amateur/sw 24hr clock. It keeps excellent time.
>
> Guido,
>
> I have here an electric clock that my parents used in the 1940?s or possibly earlier. It?s case and glass are cracked, but I intend to overhaul and run the thing. I also have a slightly ?younger? clock I used in the 1950?s and expect to overhaul that one, too.
>
> I?ll try the heat and cool process of changing the oil in the motor, along with a normal clean and lubricate process on the rest of the mechanism.
>
> As to accuracy, the things operate on 60 cycles, and here in the US, the power frequency is held to rather amazing accuracy, and though it might drift up and down a slight bit, I think that the overall long term accuracy is quite astounding. I remember watching my clock keep right on the second time over many months compared to WWV time broadcasts.
>
> Roy
>
> Roy Morgan
> k1lky68 at gmail.com
> K1LKY Since 1958
>

From knjhanlon at msn.com Wed Oct 14 19:39:29 2015
From: knjhanlon at msn.com (JAMES HANLON)
Date: Wed, 14 Oct 2015 17:39:29 -0600
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>,
 <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>
Message-ID: <BLU184-W7048C3A638D229BFC6B60BA03F0@phx.gbl>

Guido,

The only solution is to pack up all of your humidity-endangered BAs and send them to me in New Mexico - for safe keeping of course. I wonder what my wife will say.

Jim

Date: Wed, 14 Oct 2015 17:25:06 -0400

Subject: Re: [BoatAnchors] Rescucitation of BA's
From: gsantacanav at gmail.com
To: knjhanlon at msn.com
CC: boatanchors at minime.theporch.com

Hi all

Jim's experience correlates well with his ambient humidity. In my case living in an island where 20% humidity never happens and the average is above 60% year round, paper cap replacement is a must. I have received radios with still sealed black beauties that in one year have developed cracks. I live miles from the coast and that had avoided having major problems with corrosion from salty air. My SP600 has been with me for 35 years an is in great shape and recapped of course. Even old micas are failing by now.

73s

Guido Santacana KP4FAR

From gsantacanav at gmail.com Wed Oct 14 20:38:29 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Wed, 14 Oct 2015 20:38:29 -0400
Subject: [BoatAnchors] Rescucitation of BA's
In-Reply-To: <BLU184-W7048C3A638D229BFC6B60BA03F0@phx.gbl>
References: <BLU184-W845DDB490FBE6960660032A03F0@phx.gbl>
 <CAO1yix2285m8V7+ZUA6y417Ah0cUmGKskJB36bR9PV__Fiwwmg@mail.gmail.com>
 <BLU184-W7048C3A638D229BFC6B60BA03F0@phx.gbl>
Message-ID: <CAO1yix3JV4O92C7V1yf2SOQbHOZ4zVSiqUx5eL6ygmfr5+GfiQ@mail.gmail.com>

Jim,

Your wife will react the same as mine and move our shacks to the doghouse! Luckily the old BAs were made to stand humidity and temperature especially military specs ones. Many years ago I found a battered up NC240D in a farm and of all places at the chicken coop so no more explanation needed. I took pity on the thing plus the fact that I had never seen one of these. A friend of mine who had an old VW van brought it home. Basically I hosed the poor thing down everywhere and used some cleaner to scrub the gunk out. After the cleanup it still looked bad but much better than before. A whole week in the our sun dried it up well. Someone had replaced the caps with ceramics and the resistors were more or less in tolerance. I added a missing 6V6 audio amp, took the rectifier out, connected the mains, a little prayer and turned on the filaments. Nothing blew apart. Turned the B+ on and ok without rectifier. Then, replaced the rectifier, bigger prayer, B+ on, kept some distance from it for a while. Finally after seeing that everything was on and nothing was burning, a speaker was connected and noise came out. Later on a wire was connected to the antenna terminal and I could hear local broadcast. With the proper long wire, the battered NC 240D was receiving shortwave very well. It was missing the dial cover, knobs chrome trimming etc but that thing remained in the shack for years until I landed a real good one. My VW friend, also a ham, took it home and I lost track of that receiver. I think he repainted it and did some mods. I cycle my BAs so that not one of them remains off more than a month. In high humidity periods I do it more often.

Humidity this year has been lower that usual. We are going through a bad drought and spent 5 months with water rationing.

BTW I have a colleague whose wife is from Albuquerque and he did his studies there. Great place.

73s

Guido

Guido Santacana KP4FAR

On Wed, Oct 14, 2015 at 7:39 PM, JAMES HANLON <knjhanlon at msn.com> wrote:

>
> Guido,
>
> The only solution is to pack up all of your humidity-endangered BAs and
> send them to me in New Mexico - for safe keeping of course. I wonder what
> my wife will say.
>
> Jim
>
> ------------------------------
> Date: Wed, 14 Oct 2015 17:25:06 -0400
> Subject: Re: [BoatAnchors] Rescucitation of BA's
> From: gsantacanav at gmail.com
> To: knjhanlon at msn.com
> CC: boatanchors at minime.theporch.com
>
> Hi all
>
> Jim's experience correlates well with his ambient humidity. In my case
> living in an island where 20% humidity never happens and the average is
> above 60% year round, paper cap replacement is a must. I have received
> radios with still sealed black beauties that in one year have developed
> cracks. I live miles from the coast and that had avoided having major
> problems with corrosion from salty air. My SP600 has been with me for 35

> years an is in great shape and recapped of course. Even old micas are
> failing by now.
>
> 73s
>
> Guido Santacana KP4FAR
>
>
>

From JJan-3 at cox.net Wed Oct 14 20:56:26 2015
From: JJan-3 at cox.net (Jim Hill)
Date: Wed, 14 Oct 2015 17:56:26 -0700
Subject: [BoatAnchors] Rescucitation of BA's
Message-ID: <20151015010328.QNDZ31456.fed1rmfepo102.cox.net@fed1rmimpo305>

Here's my approach:
Reform all filter cap's. I have an old Heath capacitor checker that
has a reforming mode, which I use. If some are bad, tack in replacements

Using an adjustable HV power supply and milliammeter, apply B+ to
rectifier filament or cathode, starting at minimum voltage. If much
current is drawn, check the schematic and calculate receiver bleeder
resistor current draw. If current is not very high run up to maybe 100V.

Check output tube(s) plate voltages. Should be about the same as the
applied voltage. If not, check output transformer. Operating the
radio with an open output transformer primary will cause the screens
to become red hot.

Check audio tube control grid voltages using a high impedance
voltmeter. It should be 0V on the lowest range. If not, you
probably have leaky coupling caps. Tack in replacements, and check again.

Check screen voltages (probably excluding output tube). Voltage
should be about the power supply voltage, but check
schematic. Screen resistors should have zero voltage drop, since
filaments are cold. If less, you have decoupling capacitor leakage
problems. If not too much, bring up to full voltage for a short
while, remove power, and touch each appropriate resistor with
finger. They should be cold.

Check RF and IF tube plate voltages. If low or zero, you have
potential RF or IF transformer problems. Decide what to do.

Run B+ up to approximate RX B+, and test again.

Since these radios now have gone through many hands, a rough power transformer check would be in order. Remove all tubes and apply 110VAC through a variac and low wattage light bulb (with no tubes). It it seems too bright, run the same test on another BA of approximately the same number of tubes to see what is too bright. If you think you are not too bad, bring up the voltage through maybe a 60 watt bulb until fairly bright, let it run for a while and see if the transformer warms up. Run this test at the start.

If it passes the above tests, you have a good chance of not damaging the receiver when applying power.

If the receiver is dead, remember to check the local oscillator using another receiver. A carrier should be "heard" actually S-meter should indicate a signal, background noise should disappear, etc.

Jim, w6ivw

From JJan-3 at cox.net Thu Oct 15 03:27:39 2015
From: JJan-3 at cox.net (Jim Hill)
Date: Thu, 15 Oct 2015 00:27:39 -0700
Subject: [BoatAnchors] Rescucitation of BA's
Message-ID: <20151015072742.NJFY31456.fed1rmfepo102.cox.net@fed1rmimpo306>

I should add another step to my quickie power transformer test. If the transformer appears to be bad, check again with HV leads disconnected. If no joy, try again with all leads disconnected - but tag the leads while you still know where they go. I use hard paper tags with strings, available at office supply stores. Maybe there the problem is in the receiver, or you will be lucky and find a replacement transformer.
Jim

From vilgotch at bigpond.net.au Thu Oct 15 04:31:30 2015
From: vilgotch at bigpond.net.au (Morris Odell)
Date: Thu, 15 Oct 2015 19:31:30 +1100
Subject: [BoatAnchors] Rescucitation of BA's
Message-ID: <001601d10723$e47a38c0$ad6eaa40$@bigpond.net.au>

Hi all,

This is a very interesting thread. My practice down here in Oz has been shaped by the types of equipment that turns up. I have found that US made professional BAs are generally made with very good quality parts and unless the caps are BBs I usually don't replace them unless they are obviously faulty on testing. The ultimate examples are US made Tek tubed oscilloscopes that can often just be cleaned up and then turned on - after a tense 45 seconds they usually come up very nicely.

However we have our share of British BAs down here and that's another story. Anyone restoring British BA gear without replacing all the caps (and quite a few resistors too) is asking for trouble. Even British made Tek scopes often have drifted resistors and faulty caps in my experience. I have never found any reliable brands of capacitors in British equipment, they couldn't make a decent cap to save their lives. The worst of them were the "Hunts" capacitors, not only couldn't they make a capacitors, they couldn't even spell their own name properly :-)

Like many other here, I emphasis safety first by checking the power cord and mains side parts. I might run it without the rectifier to check the tubes all light up and then after checking for HT shorts I just let 'er rip. So far no explosions and I'm still here!

73, Morris

From wb3fau55 at neo.rr.com Thu Oct 15 06:03:33 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Thu, 15 Oct 2015 6:03:33 -0400
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
Message-ID: <20151015100333.K5XVC.37436.root@cdptpa-web26>

I am thinking it was Sprague. I do recall Astron had some bad caps years before they became more famous for power supplies. In recent times, I have heard of some Chinese made electrolytics in which the electrolyte is not good. Orange drops are actually old hat and some newer stuff is just as good and less expensive. One good thing about some of the bumblebees is they are made to just heat the one end and pull out the lead for testing. 73s Russ.

From spr at earthlink.net Thu Oct 15 10:20:38 2015
From: spr at earthlink.net (Scott Robinson)
Date: Thu, 15 Oct 2015 07:20:38 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <20151015100333.K5XVC.37436.root@cdptpa-web26>
References: <20151015100333.K5XVC.37436.root@cdptpa-web26>
Message-ID: <561FB636.9070005@earthlink.net>

Ah, yes the mid-2000's electrolytic mess. Here's the story as I heard it:

A guy went to work for Nichicon or one of the other first quality
Japanese electrolytic cap makers. After a year or two, he quite,
carrying in his head or in his notes the formula for the liquid that
goes inside the caps.

He then moved to Taiwan and he (and others?) started a company selling
the liquid, cheap. A lot of low cost mainland Chinese cap manufacturers
bought the soup and sold lots of low cost parts.

Unfortunately...our guy had left his Japanese employer with *most* of
the recipe, not all of it. The part he didn't have was the stuff that
made the caps last longer than about two years. So, a lot of computer
mother boards, routers, and video monitors (for example) made in the
mid-2000s died quite young. If you have one of these lying around, you
can fix it by changing out all the electrolytics that have leaked or are
bulging.

The equipment manufacturers change suppliers in droves as soon as the
problem was discovered, but had already made about two years' worth of
products.

So there's what I heard; a friend of mine has fixed dozens of video
monitors by changing power supply caps.

Peace,

Scott

On 10/15/15 3:03 AM, Russ Dworakowski WB3FAU via BoatAnchors wrote:
In recent times, I have heard of some Chinese made electrolytics in
which the electrolyte is not good. 73s Russ.

From wb0eq at yahoo.com Thu Oct 15 10:33:25 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Thu, 15 Oct 2015 14:33:25 +0000 (UTC)
Subject: [BoatAnchors] BA paperwork source
References: <1674869805.855418.1444919605815.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <1674869805.855418.1444919605815.JavaMail.yahoo@mail.yahoo.com>

Hi All,
Found a web site for paperwork of all sorts of electronics (& other things), new
to me:? ebaman.com
It's based in Sweden
?--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From wb0eq at yahoo.com Thu Oct 15 10:45:39 2015
From: wb0eq at yahoo.com (John Sehring)

Date: Thu, 15 Oct 2015 14:45:39 +0000 (UTC)
Subject: [BoatAnchors] Rescucitation of BA's
References: <325035457.847907.1444920339416.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <325035457.847907.1444920339416.JavaMail.yahoo@mail.yahoo.com>

I want to heartily thank ALL who responded to my request for Emergency Room techniques for bringing BA's back to life.
I am very happy to see a gathering of so many? approaches in one place--here!? I'm hoping they have all coalesced in my brain.? Plus gave me a lot of food for thought.? Jogged a lot of old memories.? I think this is the ultimate in distance-Elmering (cyber Elmering?).

The advantage we have over ER personnel? is that of time--we need not be in any rush to fix 'em.? We just don't want to take stupid, irreversible steps, e.g. blowing a power transformer!
BTW, whenever I get flak (rarely, truth be told) about collecting electronic BA's, I just remind those concerned that I could be collecting "BA" *cars* instead!? How about a lawn full of them among the dandelions?
?My gratitude to you all.
--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From wb0eq at yahoo.com Thu Oct 15 11:05:24 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Thu, 15 Oct 2015 15:05:24 +0000 (UTC)
Subject: [BoatAnchors] Waterman "PocketScope"
References: <1209580487.831265.1444921524579.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <1209580487.831265.1444921524579.JavaMail.yahoo@mail.yahoo.com>

I found a Waterman "PocketScope" recently.
Cute little 3" o'scope in quite a compact package crossed my table at a recent Calgary (Alberta) ham fest.
Quite fully featured, X & Y channels identical, pretty decent sensitivity.? It works--sort of.?

Very rusty.? Wire insulation crumbling.? Loose parts dangling about.? Some wax capacitors & bad PS B+ electrolytics.

And the packaging is a nightmare!? Extremely tight, sub-chassis, folded upon one another.? No way to reach a lot of stuff at all without complete diassembly.
?Build quality is I think not good enough to allow such? tight parts density to work reliably.
I guess the marketing department dictated the size of the unit and said, "You will build this!".
I reckon I'll permanently retire this thing.? It'll become a donor for the other o'scopes hanging about here.

I once saw a MIL version (Navy) of this scope, came in it's own storage/carrying case.? Shoulda bought it.

--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From gumbear at pacbell.net Thu Oct 15 12:47:28 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Thu, 15 Oct 2015 09:47:28 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <561FB636.9070005@earthlink.net>
References: <20151015100333.K5XVC.37436.root@cdptpa-web26>
 <561FB636.9070005@earthlink.net>
Message-ID: <3338854CD134428EBDC4FEA70A6FF048@KB6NAX>

> ....A guy went to work for Nichicon or one of the other first quality Japanese electrolytic cap makers. After a year or two, he quite, carrying in his head or in his notes the formula for the liquid that goes inside the caps. ....

Same story I've heard, Scott. I've even run across those problem caps in audio equipment. For no discernable reason the caps leak like crazy causing corrosion of their leads and other components near by, almost like battery acid. Replacing those also involves thorough cleaning of the circuit board and adjacent components. And, oh yes, applying a thin coating of WD-40 for good karma.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From wb3fau55 at neo.rr.com Thu Oct 15 17:24:49 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Thu, 15 Oct 2015 17:24:49 -0400
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <3338854CD134428EBDC4FEA70A6FF048@KB6NAX>
Message-ID: <20151015212450.NWRNH.48328.root@cdptpa-web26>

Yes Arden, I think you are correct on Nichicon, they are good caps. I think the guy took the formula to China, but he messed up? Are the bumblebees and black beauties Sprague? Russ.
---- Arden Allen <gumbear at pacbell.net> wrote:
> > ....A guy went to work for Nichicon or one of the other first quality
> Japanese electrolytic cap makers. After a year or two, he quite,

> carrying in his head or in his notes the formula for the liquid that goes inside the caps. ....
>
> Same story I've heard, Scott. I've even run across those problem caps in audio equipment. For no discernable reason the caps leak like crazy causing corrosion of their leads and other components near by, almost like battery acid. Replacing those also involves thorough cleaning of the circuit board and adjacent components. And, oh yes, applying a thin coating of WD-40 for good karma.
>
> Arden Allen
> KB6NAX
>
> He who is cruel to animals becomes
> hard also in his dealings with men.
> We can judge the heart of a man by
> his treatment of animals.
> ?Immanuel Kant
>
>

From 1oldlens1 at ix.netcom.com Thu Oct 15 17:38:15 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Thu, 15 Oct 2015 14:38:15 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <20151015212450.NWRNH.48328.root@cdptpa-web26>
References: <20151015212450.NWRNH.48328.root@cdptpa-web26>
Message-ID: <56201CC7.4090402@ix.netcom.com>

It would appear that the Nichicon thing was a piece of industrial espionage that went very badly wrong. "Ah, the enemy may have the plans for our secret weapon but we made some subtle changes that they will never spot". Sherlock Holmes somewehre is it.

The colored stripes were a standard RMA (Radio Manufacturer's Association) code for a while showing value, voltage, and maybe some other stuff. While its associated with the Sprague "Black Beauty" caps it was certainly used by other manufacturers. The photos of the RF deck in older military manuals for the SP-600 show caps with stripes but in white, or at least light-colored cases. They are not Sprague but I don't know who made them. While paper caps have a set of problems the BB caps had something in addition. If the description of the manufacturing process someone posted here earlier is accrate the windings should not have been distorted but they are in every BB I've dissected. The windings in the flat Micamold and Solar paper caps were perfect but the cases had begun to crumble. These were considerably older than the BBs which evidently began to fail within months of being manufactured.

Another bright idea gone bad.

On 10/15/2015 2:24 PM, Russ Dworakowski WB3FAU via BoatAnchors wrote:
> Yes Arden, I think you are correct on Nichicon, they are good caps. I think the guy took the formula to China, but he messed up? Are the bumblebees and black beauties Sprague? Russ.
> ---- Arden Allen <gumbear at pacbell.net> wrote:
>>> ....A guy went to work for Nichicon or one of the other first quality
>> Japanese electrolytic cap makers. After a year or two, he quite,
>> carrying in his head or in his notes the formula for the liquid that
>> goes inside the caps. ....
>>
>> Same story I've heard, Scott. I've even run across those problem caps in
>> audio equipment. For no discernable reason the caps leak like crazy causing
>> corrosion of their leads and other components near by, almost like battery
>> acid. Replacing those also involves thorough cleaning of the circuit board
>> and adjacent components. And, oh yes, applying a thin coating of WD-40 for
>> good karma.
>>
>> Arden Allen
>> KB6NAX
>>
>> He who is cruel to animals becomes
>> hard also in his dealings with men.
>> We can judge the heart of a man by
>> his treatment of animals.
>> ?Immanuel Kant
>>
>>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From charlesmorris800 at centurytel.net Thu Oct 15 17:43:34 2015
From: charlesmorris800 at centurytel.net (Charles)
Date: Thu, 15 Oct 2015 16:43:34 -0500
Subject: [BoatAnchors] ***JUNK MAIL*** Feet for Triplett 630
Message-ID: <A6D049C85E3A4B8BAD04DC2035094ADD@CharlesHPLaptop>

Does anyone know where I can get the rubber feet for the back of Triplett

630's? I have several and they're all missing the feet (they fall out and disappear)...
thanks
Charles

From WA5CAB at cs.com Fri Oct 16 01:43:20 2015
From: WA5CAB at cs.com (WA5CAB at cs.com)
Date: Fri, 16 Oct 2015 01:43:20 -0400
Subject: [BoatAnchors] [T-368_BC-610] FS: KW Isolation Transformer
Message-ID: <79f7e.76fbf92.4351e878@cs.com>

I bought one of these. Although I replaced the quad IEC outlet with two duplex US style outlets, it makes a good addition to any test bench if you rebuild boatanchors. I'll add that it can be connected for 240 VAC input and/or 240 VAC output. Good for anything up to and including a BC-610 or T-368/URT.

And it weighs a tonne!

Robert Downs - Houston
wa5cab dot com (Web Store)
MVPA 9480

In a message dated 10/15/2015 10:31:25 AM Central Daylight Time,
T-368_BC-610 at yahoogroups.com writes:
>
>
> FOR SALE:
>
> Isolation Transformer rated 1:1 for 120V AC to 120V AC at 12 amps
> continuous, 50 - 60 Hz.
> Excellent condition, and mounted in extra nice 14 gauge gray cabinet with
> ON-OFF breaker
> switch, rubber feet and 4 IEC outlets. This one is rated 1400VA - nice
> case, with cables. AC
> Primary Cable and outlet adapter cable included. Excellent quality,
> excellent condition.
> Available for $49.00 plus shipping.
>
>
>
>
> Pictures and details are available on request. Please reply off the list.
>
> Please reply off the list.
>

> Bry AF4K
>
>
>
> __._,_.___ Posted by: "Bry Carling AF4K" <bcarling at cfl.rr.com>
>

From WA5CAB at cs.com Fri Oct 16 02:07:14 2015
From: WA5CAB at cs.com (WA5CAB at cs.com)
Date: Fri, 16 Oct 2015 02:07:14 -0400
Subject: [BoatAnchors] [T-368_BC-610] FS: KW Isolation Transformer
Message-ID: <7a0d3.2fb888b5.4351ee12@cs.com>

Correction - make that replaced quad IEC outlet with single US duplex
outlet.

In a message dated 10/15/2015 10:31:25 AM Central Daylight Time,
T-368_BC-610 at yahoogroups.com writes:
> FOR SALE:
>
> Isolation Transformer rated 1:1 for 120V AC to 120V AC at 12 amps
> continuous, 50 - 60 Hz.
> Excellent condition, and mounted in extra nice 14 gauge gray cabinet with
> ON-OFF breaker
> switch, rubber feet and 4 IEC outlets. This one is rated 1400VA - nice
> case, with cables. AC
> Primary Cable and outlet adapter cable included. Excellent quality,
> excellent condition.
> Available for $49.00 plus shipping.
>
>

Robert & Susan Downs - Houston
wa5cab dot com (Web Store)
MVPA 9480

From spr at earthlink.net Fri Oct 16 12:37:53 2015
From: spr at earthlink.net (Scott Robinson)
Date: Fri, 16 Oct 2015 09:37:53 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <56201CC7.4090402@ix.netcom.com>
References: <20151015212450.NWRNH.48328.root@cdptpa-web26>
 <56201CC7.4090402@ix.netcom.com>
Message-ID: <562127E1.20802@earthlink.net>

Folks,

I looked up the Black Beauties (text label, not striped) in my 1970 Allied radio catalog and they were definitely made by Sprague. They also appear in the Master catalogs listed below.

However, I looked through the entire capacitor sections of the 1954, 1958, and 1967 Master catalogs of all electronic components made in America, but found no 'bumble bee' style striped capacitors. Memory tells me that Sprague made them, but that isn't proof.

So at least one question is definitively answered...

/Scott Robinson

From navy.radio at gmail.com Fri Oct 16 14:04:49 2015
From: navy.radio at gmail.com (Nick England)
Date: Fri, 16 Oct 2015 14:04:49 -0400
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <562127E1.20802@earthlink.net>
References: <20151015212450.NWRNH.48328.root@cdptpa-web26>
 <56201CC7.4090402@ix.netcom.com> <562127E1.20802@earthlink.net>
Message-ID: <CAB55hNej4Ab839YmVadH6vW5OgLKGX38Kx8kCMF7bXD7b0Zpwg@mail.gmail.com>

For future old component reference Google turned up two generally useful links
Allied catalogs - http://www.alliedcatalogs.com/
Vintage component catalogs - http://www.33audio.com/enter/datasheets.html

Evidently the Sprague TM series paper caps in molded black bakelite packages are indeed Bumble-Bees.
Bumble Bee was an unofficial nickname because they were black with RMA/RETMA color bands.
Later ones had the value printed directly on them (what we usually call Black Beauty).
Sprague officially called the TM series Telecap (tm) Black Beauty (tm).
Paper dielectric for 200v & 400v versions and oil-impregnated paper for 600v to 12,500v ratings.
Later version were difilm (mylar backed paper).

I've looked through several Allied catalogs from the late 1940's-50's but the illustrations just show black caps without color bands.

Nick England K4NYW
www.navy-radio.com

On Fri, Oct 16, 2015 at 12:37 PM, Scott Robinson via BoatAnchors
<boatanchors at theporch.com> wrote:
> Folks,
>
> I looked up the Black Beauties (text label, not striped) in my 1970 Allied
> radio catalog and they were definitely made by Sprague. They also appear in
> the Master catalogs listed below.
>
> However, I looked through the entire capacitor sections of the 1954, 1958,
> and 1967 Master catalogs of all electronic components made in America, but
> found no 'bumble bee' style striped capacitors. Memory tells me that Sprague
> made them, but that isn't proof.
>
> So at least one question is definitively answered...
>
> /Scott Robinson
>
>
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

From gumbear at pacbell.net Fri Oct 16 16:40:37 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 16 Oct 2015 13:40:37 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <CAB55hNej4Ab839YmVadH6vW5OgLKGX38Kx8kCMF7bXD7b0Zpwg@mail.gmail.com>
References: <20151015212450.NWRNH.48328.root@cdptpa-web26>
 <56201CC7.4090402@ix.netcom.com> <562127E1.20802@earthlink.net>
 <CAB55hNej4Ab839YmVadH6vW5OgLKGX38Kx8kCMF7bXD7b0Zpwg@mail.gmail.com>
Message-ID: <1A9A970DBBF94F74B08DF3711571486D@KB6NAX>

> ....For future old component reference Google turned up two generally
> useful links
Allied catalogs - http://www.alliedcatalogs.com/
Vintage component catalogs - http://www.33audio.com/enter/datasheets.html

WOW! Those are great resources, Nick. Now I can relive my youth thumbing
through Allied catalogs :-)

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.

We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From gumbear at pacbell.net Fri Oct 16 16:32:09 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Fri, 16 Oct 2015 13:32:09 -0700
Subject: [BoatAnchors] who made the bumble-bees and black beauties?
In-Reply-To: <562127E1.20802@earthlink.net>
References: <20151015212450.NWRNH.48328.root@cdptpa-web26>
 <56201CC7.4090402@ix.netcom.com> <562127E1.20802@earthlink.net>
Message-ID: <C09018A444044BB4B64410CB95DF691E@KB6NAX>

> ....However, I looked through the entire capacitor sections of the
> 1954,

1958, and 1967 Master catalogs of all electronic components made in America, but found no 'bumble bee' style striped capacitors. ....

Scott, "BumbleBee" apparently was a popularized reference to Sprague's Black Beauty line of capacitors. It never was a trade name. It may also have been used to describe other manufacturer's striped capacitors. After all, the striped black capacitors did remind one of the bumble bee species that is black with yellow stripes on its back. Seen any lately in your garden?

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From wb3fau55 at neo.rr.com Fri Oct 16 18:44:43 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Fri, 16 Oct 2015 18:44:43 -0400
Subject: [BoatAnchors] bumble bee caps
Message-ID: <20151016224443.NNLK2.64406.root@cdptpa-web26>

Guys, someone made these for mfg. of the old BW TV sets that we all used strip for parts? Perhaps it was RCA, GE, or Sylvania? But I have seen these as NOS parts at hamfests. The audiophools buy these! Looking back in time, the original Sprague Orange Drops were 1st made in 1959. Well, I read that somewhere. Great story line here, perhaps if we went to the tube amp people they would know? thanks Russ.

From navy.radio at gmail.com Fri Oct 16 19:09:19 2015
From: navy.radio at gmail.com (Nick England)
Date: Fri, 16 Oct 2015 19:09:19 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <20151016224443.NNLK2.64406.root@cdptpa-web26>
References: <20151016224443.NNLK2.64406.root@cdptpa-web26>
Message-ID: <CAB55hNd=nWAiPmy_OUyzEObLvihe4_39ZbBYOVW+jpzfi7-7xw@mail.gmail.com>

Yes the originals were a Sprague economy line for TV and radio use.
Nowadays, you can get 2 (count 'em 2) recreation bumble bee caps from the
Gibson Guitar Co. for a mere $129.95 for the pair.
http://store.gibson.com/historic-spec-bumble-bee-capacitors-two-pack/
There just ain't no telling what happens when people's
ear/brain/imagination gets involved.

On Friday, October 16, 2015, Russ Dworakowski WB3FAU via BoatAnchors <
boatanchors at theporch.com> wrote:

> Guys, someone made these for mfg. of the old BW TV sets that we all used
> strip for parts? Perhaps it was RCA, GE, or Sylvania? But I have seen
> these as NOS parts at hamfests. The audiophools buy these! Looking
> back in time, the original Sprague Orange Drops were 1st made in 1959.
> Well, I read that somewhere. Great story line here, perhaps if we went to
> the tube amp people they would know? thanks Russ.
>

--
Nick England K4NYW
www.navy-radio.com

From gsantacanav at gmail.com Fri Oct 16 23:54:43 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Fri, 16 Oct 2015 23:54:43 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <20151016231409.XNMMW.64705.root@cdptpa-web26>
References: <0C385015-434B-4551-A58D-DD6F690D24E3@gmail.com>
 <20151016231409.XNMMW.64705.root@cdptpa-web26>
Message-ID: <CAO1yix0Zq6Sm0pRQf_t6i8R+uAdVLjhV4=Hw2g=X-pcAzv9g9A@mail.gmail.com>

Russ

 I do remember all kinds of instructions on how to fit an orange drop to
replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene

fitted just fine. I only use those now.

Best 73s

Guido
On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
> Guido, the truth is the new poly caps are the newest technology. Orange
Drops are actually old hat. Russ.
> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>> The only TV set that I ever restored was a 1950s RCA full of these black
beauties. They were all cracked. I found a pack of these that were new and
sealed. They tested well in my TO-4 and I sold them at the e place. People
bidded like crazy for them and I suddenly had BA $ available from some .5
and 1uF black beauties rated at 1000VDC. I don't know who bought them but
can guess. Why they insist on using these things beats me.
>>
>>   I remember that back in the 90s orange drops were the " in thing" to
use when replacing paper caps. They were not cheap so I kept on using the
yellow polypropilene caps and they are still working well.
>>
>> 73s
>>
>> Guido
>>
>> Guido Santacana KP4FAR
>>
>> Sent from my iPad
>>
>> On Oct 16, 2015, at 6:44 PM, Russ Dworakowski WB3FAU via BoatAnchors <
boatanchors at theporch.com> wrote:
>>
>> > Guys, someone made these for mfg. of the old BW TV sets that we all
used strip for parts? Perhaps it was RCA, GE, or Sylvania? But I have
seen these as NOS parts at hamfests. The audiophools buy these!
Looking back in time, the original Sprague Orange Drops were 1st made
in 1959. Well, I read that somewhere. Great story line here, perhaps if
we went to the tube amp people they would know? thanks Russ.
>> > ____
>> > BoatAnchors mailing list
>> > BoatAnchors at theporch.com
>> > https://minime.theporch.com/mailman/listinfo/boatanchors
>
>

From WA5CAB at cs.com Sat Oct 17 00:33:55 2015
From: WA5CAB at cs.com (WA5CAB at cs.com)
Date: Sat, 17 Oct 2015 00:33:55 -0400

Subject: [BoatAnchors] bumble bee caps
Message-ID: <900ae.6229cdaf.435329b2@cs.com>

As capacitors, electrically orange drops are good. Mechanically they are radial lead, intended for installation on PC boards. As replacements for axial lead paper dielectric capacitors, they are terrible. If you use them to repair a decent military set, you end up with something that looks like it was hacked by a clueless idiot. I standardized on axial lead metalized polyester years ago for replacement purposes. The only problem I sometimes have with them is that the standard lead lengths are shorter than used to be standard on axial lead plastic or aluminum body capacitors. There is one location in a BC-611 where they just barely reach.

In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
boatanchors at theporch.com writes:
> Russ
>
> I do remember all kinds of instructions on how to fit an orange drop to
> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
> fitted just fine. I only use those now.
>
> Best 73s
>
> Guido
> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
> >Guido, the truth is the new poly caps are the newest technology. Orange
> Drops are actually old hat. Russ.
> >---- Guido Santacana <gsantacanav at gmail.com> wrote:
> >>The only TV set that I ever restored was a 1950s RCA full of these black
> beauties. They were all cracked. I found a pack of these that were new and
> sealed. They tested well in my TO-4 and I sold them at the e place. People
> bidded like crazy for them and I suddenly had BA $ available from some .5
> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
> can guess. Why they insist on using these things beats me.
> >>
> >>   I remember that back in the 90s orange drops were the " in thing" to
> use when replacing paper caps. They were not cheap so I kept on using the
> yellow polypropilene caps and they are still working well.
> >>
> >>73s
> >>
> >>Guido
> >>
> >>Guido Santacana KP4FAR
> >>

Robert & Susan Downs - Houston
wa5cab dot com (Web Store)

MVPA 9480

From gsantacanav at gmail.com Sat Oct 17 09:25:33 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Sat, 17 Oct 2015 09:25:33 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <900ae.6229cdaf.435329b2@cs.com>
References: <900ae.6229cdaf.435329b2@cs.com>
Message-ID: <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>

In my early days of BA restorations I used orange drops a lot. My NC173 is full of them and it looks awful underneath the chassis. They were difficult to fit in where axial leads should go and never looked natural there. Nonetheless they have done the job for years.

In the case of mica caps my worst scenario was a Navy REP entertainment receiver in which all except one of the micas were leaky or completely shorted. Values were odd and had to be approximated but it the end it came out well.

73s

Guido

Guido Santacana KP4FAR
Sent from my iPad

On Oct 17, 2015, at 12:33 AM, Robert Downs WA5CAB via BoatAnchors <boatanchors at theporch.com> wrote:

> As capacitors, electrically orange drops are good. Mechanically they are
> radial lead, intended for installation on PC boards. As replacements for
> axial lead paper dielectric capacitors, they are terrible. If you use them to
> repair a decent military set, you end up with something that looks like it
> was hacked by a clueless idiot. I standardized on axial lead metalized
> polyester years ago for replacement purposes. The only problem I sometimes have
> with them is that the standard lead lengths are shorter than used to be
> standard on axial lead plastic or aluminum body capacitors. There is one
> location in a BC-611 where they just barely reach.
>
> In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
> boatanchors at theporch.com writes:
>> Russ
>>
>> I do remember all kinds of instructions on how to fit an orange drop to
>> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
>> fitted just fine. I only use those now.
>>

```
>> Best 73s
>>
>> Guido
>> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
>>> Guido, the truth is the new poly caps are the newest technology.  Orange
>> Drops are actually old hat.  Russ.
>>> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>>>> The only TV set that I ever restored was a 1950s RCA full of these black
>> beauties. They were all cracked. I found a pack of these that were new and
>> sealed. They tested well in my TO-4 and I sold them at the e place. People
>> bidded like crazy for them and I suddenly had BA $ available from some .5
>> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
>> can guess. Why they insist on using these things beats me.
>>>>
>>>>  I remember that back in the 90s orange drops were the " in thing" to
>> use when replacing paper caps. They were not cheap so I kept on using the
>> yellow polypropilene caps and they are still working well.
>>>>
>>>> 73s
>>>>
>>>> Guido
>>>>
>>>> Guido Santacana KP4FAR
>>>>
>
> Robert & Susan Downs - Houston
> wa5cab dot com (Web Store)
> MVPA 9480
> ______________________________________________
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors


From kc2kj1 at gmail.com  Sat Oct 17 11:23:06 2015
From: kc2kj1 at gmail.com (Mike Sullivan)
Date: Sat, 17 Oct 2015 11:23:06 -0400
Subject: [BoatAnchors] Help needed for SWAN 100MXA install of Cambria Labs
     X-Lock freq. stabilizer
Message-ID: <BC159448-6458-435E-A670-A0741346D214@mac.com>

1. Have partially installed the X-Lock stabilizer but would like to have the RIT
work as well.  As installed the PTO shifted about 7 KHz and the RIT circuit would
not work,  Removed the link to the X-Lock (Var output) and RIT worked.  When
experimenting had both working briefly but no luck now,  Any help out there?

Mike
kc2kj
```

From 1oldlens1 at ix.netcom.com Sat Oct 17 12:35:17 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sat, 17 Oct 2015 09:35:17 -0700
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
References: <900ae.6229cdaf.435329b2@cs.com>
 <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
Message-ID: <562278C5.1080600@ix.netcom.com>

The original Orange Drop caps used plastic impregnated paper dielectric according to a very old Sprague ad for them. They are epoxy dipped and are evidently much more reliable than the molded Bakelite caps of the time. As far as looks go, no one sees the underchassis of my stuff except me. Some equipment is neater looking than others, for instance Hallicrafters used a lot of point to point wiring and looks like consumer gear while National and others had very neat wiring. Same between Hewlett-Packard and General Radio, -hp- used a lot of point to point wiring with ample service loops on stuff, GR used cabled wiring and mounted everything on terminal boards. GR looks much neater but is harder to work on.

Mica caps were supposed to be exremely reliable and long lived. There are two types: stacked and silver plated. The stacked ones were used mainly as transmitting capacitors. They are made using alternating layers of aluminum foil and mica plates, assembled with some means of keeping the stack under pressure. They tend to have very long life. The silvered kind are made by electro-plating a thin silver coating on the mica plates and stacking them. They were more stable and could be made to close tolerances. The problem is that the common molded Bakelite cases are not completely moisture tight. When moisture gets in it causes the silver plating to corrode or tarnish. The tarnish can migrate across the mica dielectric causing shorts between layers. The migration is partly affected by DC across the cap. Silver-mica are often found in RF circuits where precision values were necessary. When they go bad they can become very unstable causing jumps in capacitance which shows up as jumping frequency in oscillators and in changing tuning where used in amplifiers. I think that here again the modern dipped epoxy packages are more immune to moisture and other problems. Its also likely that modern capacitor manufacture is "cleaner" with less chance of impurities that cause degradation with time to be contained.

On 10/17/2015 6:25 AM, Guido Santacana via BoatAnchors wrote:
> In my early days of BA restorations I used orange drops a lot. My NC173 is full of them and it looks awful underneath the chassis. They were difficult to fit in where axial leads should go and never looked natural there. Nonetheless they have done the job for years.
>
> In the case of mica caps my worst scenario was a Navy REP entertainment receiver

in which all except one of the micas were leaky or completely shorted. Values were odd and had to be approximated but it the end it came out well.
>
> 73s
>
> Guido
>
> Guido Santacana KP4FAR
> Sent from my iPad
>
> On Oct 17, 2015, at 12:33 AM, Robert Downs WA5CAB via BoatAnchors <boatanchors at theporch.com> wrote:
>
>> As capacitors, electrically orange drops are good. Mechanically they are
>> radial lead, intended for installation on PC boards. As replacements for
>> axial lead paper dielectric capacitors, they are terrible. If you use them to
>> repair a decent military set, you end up with something that looks like it
>> was hacked by a clueless idiot. I standardized on axial lead metalized
>> polyester years ago for replacement purposes. The only problem I sometimes
have
>> with them is that the standard lead lengths are shorter than used to be
>> standard on axial lead plastic or aluminum body capacitors. There is one
>> location in a BC-611 where they just barely reach.
>>
>> In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
>> boatanchors at theporch.com writes:
>>> Russ
>>>
>>> I do remember all kinds of instructions on how to fit an orange drop to
>>> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
>>> fitted just fine. I only use those now.
>>>
>>> Best 73s
>>>
>>> Guido
>>> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
>>>> Guido, the truth is the new poly caps are the newest technology. Orange
>>> Drops are actually old hat. Russ.
>>>> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>>>>> The only TV set that I ever restored was a 1950s RCA full of these black
>>> beauties. They were all cracked. I found a pack of these that were new and
>>> sealed. They tested well in my TO-4 and I sold them at the e place. People
>>> bidded like crazy for them and I suddenly had BA $ available from some .5
>>> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
>>> can guess. Why they insist on using these things beats me.
>>>>>   I remember that back in the 90s orange drops were the " in thing" to
>>> use when replacing paper caps. They were not cheap so I kept on using the
>>> yellow polypropilene caps and they are still working well.

>>>>> 73s
>>>>>
>>>>> Guido
>>>>>
>>>>> Guido Santacana KP4FAR
>>>>>
>> Robert & Susan Downs - Houston
>> wa5cab dot com (Web Store)
>> MVPA 9480
>> ____
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From arc5 at ix.netcom.com Sat Oct 17 13:32:30 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 17 Oct 2015 12:32:30 -0500
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
References: <900ae.6229cdaf.435329b2@cs.com>
 <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
Message-ID: <3B2B852274CC4A6191025754C3289BDF@DaddyPC>

----- Original Message -----
From: "Guido Santacana via BoatAnchors"
<boatanchors at theporch.com>

> In the case of mica caps my worst scenario was a
>Navy REP entertainment receiver in which all except one
>of the micas were leaky or completely shorted.
>Values were odd and had to be approximated but in
>the end it came out well.

Second that! There are bunches of them.
Serious tip: If you ever rework an REP, do NOT attempt

to unsolder the micas from the band switch. You WILL
break the impossible to replace switch wafers.
Just cut the leads and tack in a replacement.
Believe me; your objections at how that looks will be
nothing compared to the sorrow and grief of a broken switch.

73 DE Dave AB5S

From arc5 at ix.netcom.com Sat Oct 17 13:44:21 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 17 Oct 2015 12:44:21 -0500
Subject: [BoatAnchors] Titanic- They Deleted the Best Scene
Message-ID: <70856AA65DEF4DCE88D659FABF5DA435@DaddyPC>

They deleted the best scene:

https://www.youtube.com/watch?v=U8PLDqqdpu0

From gsantacanav at gmail.com Sat Oct 17 14:07:36 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Sat, 17 Oct 2015 14:07:36 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <3B2B852274CC4A6191025754C3289BDF@DaddyPC>
References: <900ae.6229cdaf.435329b2@cs.com>
 <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
 <3B2B852274CC4A6191025754C3289BDF@DaddyPC>
Message-ID: <CAO1yix3ruT_dRiyUPnqFXn4jKQg_NryRTB2skopKdF18Gqeuyg@mail.gmail.com>

Been there and did exactly what you recommend. Never unsoldered. Leads were
cut and new caps were soldered to the old leads as neat as possible. That
was done years ago. The REP is a neat receiver. I had my bad experience
with a broken an burned switch wafer in the RF section of an SX110.

73s

Guido

On Saturday, October 17, 2015, David Stinson via BoatAnchors <
boatanchors at theporch.com> wrote:

>
> ----- Original Message ----- From: "Guido Santacana via BoatAnchors" <
> boatanchors at theporch.com>

>
> In the case of mica caps my worst scenario was a
>> Navy REP entertainment receiver in which all except one
>> of the micas were leaky or completely shorted.
>> Values were odd and had to be approximated but in
>> the end it came out well.
>>
>
> Second that! There are bunches of them.
> Serious tip: If you ever rework an REP, do NOT attempt
> to unsolder the micas from the band switch. You WILL
> break the impossible to replace switch wafers.
> Just cut the leads and tack in a replacement.
> Believe me; your objections at how that looks will be
> nothing compared to the sorrow and grief of a broken switch.
>
> 73 DE Dave AB5S
>
>
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From WA5CAB at cs.com Sat Oct 17 14:30:22 2015
From: WA5CAB at cs.com (WA5CAB at cs.com)
Date: Sat, 17 Oct 2015 14:30:22 -0400
Subject: [BoatAnchors] bumble bee caps
Message-ID: <ba157.200a32b8.4353edbe@cs.com>

There was a little widgit made for doing that sort of neat splicing. As far as I can recall, called a Quig. Consisted of a small coil of #22 or #20 solid tinned buss wire maybe a quarter inch long. I use a pin vise and drill bit to wind them with.

I think that the commercial ones that were sold many years ago had enough solder on them that all you had to do was heat the joint to flow the solder.

In a message dated 10/17/2015 13:08:38 PM Central Daylight Time,
boatanchors at theporch.com writes:
> Been there and did exactly what you recommend. Never unsoldered. Leads
> were
> cut and new caps were soldered to the old leads as neat as possible. That
> was done years ago. The REP is a neat receiver. I had my bad experience
> with a broken an burned switch wafer in the RF section of an SX110.

>
> 73s
>
> Guido
>
> On Saturday, October 17, 2015, David Stinson via BoatAnchors <
> boatanchors at theporch.com> wrote:
>
> >
> >----- Original Message ----- From: "Guido Santacana via BoatAnchors" <
> >boatanchors at theporch.com>
> >
> >In the case of mica caps my worst scenario was a
> >>Navy REP entertainment receiver in which all except one
> >>of the micas were leaky or completely shorted.
> >>Values were odd and had to be approximated but in
> >>the end it came out well.
> >>
> >
> >Second that! There are bunches of them.
> >Serious tip: If you ever rework an REP, do NOT attempt
> >to unsolder the micas from the band switch. You WILL
> >break the impossible to replace switch wafers.
> >Just cut the leads and tack in a replacement.
> >Believe me; your objections at how that looks will be
> >nothing compared to the sorrow and grief of a broken switch.
> >
> >73 DE Dave AB5S

Robert & Susan Downs - Houston
wa5cab dot com (Web Store)
MVPA 9480

From wb3fau55 at neo.rr.com Sat Oct 17 15:08:38 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sat, 17 Oct 2015 15:08:38 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <595CE088-C32B-4936-85E3-73C14BB422D9@gmail.com>
Message-ID: <20151017190838.CMWSL.71912.root@cdptpa-web26>

Guido, I had a 173, nice old GC cruiser. I was just a teenager at the time.
There was an Olsen store nearby. I used Olsen Oilcon caps. They worked, I
have no idea if they lasted? Russ.
---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
>
> In my early days of BA restorations I used orange drops a lot. My NC173 is full
of them and it looks awful underneath the chassis. They were difficult to fit in
where axial leads should go and never looked natural there. Nonetheless they have

```
done the job for years.
>
> In the case of mica caps my worst scenario was a Navy REP entertainment receiver
in which all except one of the micas were leaky or completely shorted. Values were
odd and had to be approximated but it the end it came out well.
>
> 73s
>
> Guido
>
> Guido Santacana KP4FAR
> Sent from my iPad
>
> On Oct 17, 2015, at 12:33 AM, Robert Downs WA5CAB via BoatAnchors <boatanchors
at theporch.com> wrote:
>
> > As capacitors, electrically orange drops are good.  Mechanically they are
> > radial lead, intended for installation on PC boards.  As replacements for
> > axial lead paper dielectric capacitors, they are terrible.  If you use them to
> > repair a decent military set, you end up with something that looks like it
> > was hacked by a clueless idiot.  I standardized on axial lead metalized
> > polyester years ago for replacement purposes.  The only problem I sometimes
have
> > with them is that the standard lead lengths are shorter than used to be
> > standard on axial lead plastic or aluminum body capacitors.  There is one
> > location in a BC-611 where they just barely reach.
> >
> > In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
> > boatanchors at theporch.com writes:
> >> Russ
> >>
> >> I do remember all kinds of instructions on how to fit an orange drop to
> >> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
> >> fitted just fine. I only use those now.
> >>
> >> Best 73s
> >>
> >> Guido
> >> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
> >>> Guido, the truth is the new poly caps are the newest technology.  Orange
> >> Drops are actually old hat.  Russ.
> >>> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
> >>>> The only TV set that I ever restored was a 1950s RCA full of these black
> >> beauties. They were all cracked. I found a pack of these that were new and
> >> sealed. They tested well in my TO-4 and I sold them at the e place. People
> >> bidded like crazy for them and I suddenly had BA $ available from some .5
> >> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
> >> can guess. Why they insist on using these things beats me.
```

> >>>>
> >>>> I remember that back in the 90s orange drops were the " in thing" to
> >> use when replacing paper caps. They were not cheap so I kept on using the
> >> yellow polypropilene caps and they are still working well.
> >>>>
> >>>> 73s
> >>>>
> >>>> Guido
> >>>>
> >>>> Guido Santacana KP4FAR
> >>>>
> >
> > Robert & Susan Downs - Houston
> > wa5cab dot com (Web Store)
> > MVPA 9480
> > ____
> > BoatAnchors mailing list
> > BoatAnchors at theporch.com
> > https://minime.theporch.com/mailman/listinfo/boatanchors
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

From gsantacanav at gmail.com Sat Oct 17 16:40:14 2015
From: gsantacanav at gmail.com (Guido Santacana)
Date: Sat, 17 Oct 2015 16:40:14 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <20151017190838.CMWSL.71912.root@cdptpa-web26>
References: <20151017190838.CMWSL.71912.root@cdptpa-web26>
Message-ID: <30363882-930D-47EF-B460-3F7553561BB0@gmail.com>

The NC173 is such a nice receiver. Mine has been here for 30+ years with a 5 year sabbatical at a friend's shack. After a sabbatical for my last remaining R390A receiver that ended up in its death I don't approve them anymore. The last repair in the NC173 was the AVC circuit, a couple of bad micas.

Best 73s

Guido

Guido Santacana KP4FAR

Sent from my iPad

On Oct 17, 2015, at 3:08 PM, <wb3fau55 at neo.rr.com> wrote:

> Guido, I had a 173, nice old GC cruiser. I was just a teenager at the time.
There was an Olsen store nearby. I used Olsen Oilcon caps. They worked, I
have no idea if they lasted? Russ.
> ---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
>>
>> In my early days of BA restorations I used orange drops a lot. My NC173 is full
of them and it looks awful underneath the chassis. They were difficult to fit in
where axial leads should go and never looked natural there. Nonetheless they have
done the job for years.
>>
>> In the case of mica caps my worst scenario was a Navy REP entertainment
receiver in which all except one of the micas were leaky or completely shorted.
Values were odd and had to be approximated but it the end it came out well.
>>
>> 73s
>>
>> Guido
>>
>> Guido Santacana KP4FAR
>> Sent from my iPad
>>
>> On Oct 17, 2015, at 12:33 AM, Robert Downs WA5CAB via BoatAnchors <boatanchors
at theporch.com> wrote:
>>
>>> As capacitors, electrically orange drops are good. Mechanically they are
>>> radial lead, intended for installation on PC boards. As replacements for
>>> axial lead paper dielectric capacitors, they are terrible. If you use them to
>>> repair a decent military set, you end up with something that looks like it
>>> was hacked by a clueless idiot. I standardized on axial lead metalized
>>> polyester years ago for replacement purposes. The only problem I sometimes
have
>>> with them is that the standard lead lengths are shorter than used to be
>>> standard on axial lead plastic or aluminum body capacitors. There is one
>>> location in a BC-611 where they just barely reach.
>>>
>>> In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
>>> boatanchors at theporch.com writes:
>>>> Russ
>>>>
>>>> I do remember all kinds of instructions on how to fit an orange drop to
>>>> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
>>>> fitted just fine. I only use those now.
>>>>
>>>> Best 73s
>>>>
>>>> Guido
>>>> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:

>>>>> Guido, the truth is the new poly caps are the newest technology. Orange
>>>> Drops are actually old hat. Russ.
>>>>> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>>>>>> The only TV set that I ever restored was a 1950s RCA full of these black
>>>> beauties. They were all cracked. I found a pack of these that were new and
>>>> sealed. They tested well in my TO-4 and I sold them at the e place. People
>>>> bidded like crazy for them and I suddenly had BA $ available from some .5
>>>> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
>>>> can guess. Why they insist on using these things beats me.
>>>>>>
>>>>>> I remember that back in the 90s orange drops were the " in thing" to
>>>> use when replacing paper caps. They were not cheap so I kept on using the
>>>> yellow polypropilene caps and they are still working well.
>>>>>>
>>>>>> 73s
>>>>>>
>>>>>> Guido
>>>>>>
>>>>>> Guido Santacana KP4FAR
>>>>>>
>>>
>>> Robert & Susan Downs - Houston
>>> wa5cab dot com (Web Store)
>>> MVPA 9480
>>> ____
>>> BoatAnchors mailing list
>>> BoatAnchors at theporch.com
>>> https://minime.theporch.com/mailman/listinfo/boatanchors
>> ____
>> BoatAnchors mailing list
>> BoatAnchors at theporch.com
>> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From 1oldlens1 at ix.netcom.com Sat Oct 17 17:57:19 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sat, 17 Oct 2015 14:57:19 -0700
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <30363882-930D-47EF-B460-3F7553561BB0@gmail.com>
References: <20151017190838.CMWSL.71912.root@cdptpa-web26>
 <30363882-930D-47EF-B460-3F7553561BB0@gmail.com>
Message-ID: <5622C43F.2040100@ix.netcom.com>

I sense a sad story attached to this. I am extremely reluctant to loan anything to anybody. I have a fixed rule to absolutely to return anything I borrow in the same or better condition than I got it. I'd rather make a gift of something than loan it.

I have no experience with the NC-173 but it has an excellent reputation. Carl, who used to post here often and was with National, says they got cheap about the quality of some of their parts and he saw all sorts of failures. Mica caps, as I said before, were thought to be the ultimate in reliability. It turned out they they were not but it also depends on the brand and maybe other things. I have a number of very old receivers with silver-mica caps that are perfectly OK but some seem to have developed "silver-mica disease". I had to replace some in a couple of SP-600-JX that had developed the jumps. In particular the 51pF caps in the BFO, also used elsewhere in the set. I have also had to replace silver-micas in the RF oscillator modules for the same reason. OTOH, all the mica caps in my ancient AR-88 are just fine (he said with his fingers crossed).

On 10/17/2015 1:40 PM, Guido Santacana via BoatAnchors wrote:
> The NC173 is such a nice receiver. Mine has been here for 30+ years with a 5 year sabbatical at a friend's shack. After a sabbatical for my last remaining R390A receiver that ended up in its death I don't approve them anymore. The last repair in the NC173 was the AVC circuit, a couple of bad micas.
>
> Best 73s
>
> Guido
>
> Guido Santacana KP4FAR
>
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From dave at horsfall.org Sat Oct 17 18:52:16 2015
From: dave at horsfall.org (Dave Horsfall)
Date: Sun, 18 Oct 2015 09:52:16 +1100 (EST)
Subject: [BoatAnchors] Titanic- They Deleted the Best Scene
In-Reply-To: <70856AA65DEF4DCE88D659FABF5DA435@DaddyPC>
References: <70856AA65DEF4DCE88D659FABF5DA435@DaddyPC>
Message-ID: <alpine.BSF.2.11.1510180948200.51046@aneurin.horsfall.org>

On Sat, 17 Oct 2015, David Stinson via BoatAnchors wrote:

> They deleted the best scene:
> https://www.youtube.com/watch?v=U8PLDqqdpu0

Which reminds me, I was watching "Rage" (a program on ABC-TV that shows musical video clips) when on came "Anna" by Will Butler. The opening scene was the radio room W6RO (the Queen Mary museum ship). I was stoked...

--
Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From arc5 at ix.netcom.com Sun Oct 18 10:18:25 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 18 Oct 2015 09:18:25 -0500
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <5622C43F.2040100@ix.netcom.com>
References: <20151017190838.CMWSL.71912.root@cdptpa-web26>
<30363882-930D-47EF-B460-3F7553561BB0@gmail.com>
<5622C43F.2040100@ix.netcom.com>
Message-ID: <F2E8A367B1974AF8A4BA8E11BBF6B89D@DaddyPC>

----- Original Message -----
From: "Richard Knoppow via BoatAnchors"
<boatanchors at theporch.com>
Subject: Re: [BoatAnchors] bumble bee caps

> I sense a sad story attached to this. I am extremely
> reluctant to loan anything to anybody. I have a fixed rule to
> absolutely to return anything I borrow in the same or better
> condition than I got it. I'd rather make a gift of something
> than loan it.

My father taught me and I taught my kids:
Borrow only in dire need,
and only what you can afford to replace.
If you loan it, don't expect to see it again.
Thank the borrower and bless The Lord if you do.

From dave at horsfall.org Sun Oct 18 16:21:18 2015
From: dave at horsfall.org (Dave Horsfall)
Date: Mon, 19 Oct 2015 07:21:18 +1100 (EST)
Subject: [BoatAnchors] bumble bee caps

In-Reply-To: <F2E8A367B1974AF8A4BA8E11BBF6B89D@DaddyPC>
References: <20151017190838.CMWSL.71912.root@cdptpa-web26>
 <30363882-930D-47EF-B460-3F7553561BB0@gmail.com>
 <5622C43F.2040100@ix.netcom.com> <F2E8A367B1974AF8A4BA8E11BBF6B89D@DaddyPC>
Message-ID: <alpine.BSF.2.11.1510190714250.51895@aneurin.horsfall.org>

On Sun, 18 Oct 2015, David Stinson via BoatAnchors wrote:

> > I sense a sad story attached to this. I am extremely reluctant to
> > loan anything to anybody. I have a fixed rule to absolutely to return
> > anything I borrow in the same or better condition than I got it. I'd
> > rather make a gift of something than loan it.
>
> My father taught me and I taught my kids:
> Borrow only in dire need,
> and only what you can afford to replace.
> If you loan it, don't expect to see it again.
> Thank the borrower and bless The Lord if you do.

You could just about make a poem out of that (and indeed, I thought it was
part of your signature!).

But yeah, if I loan anything out (no matter what), I don't expect to see
it again... And I do thank the borrower (but I'm also an atheist).

--
Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From wa1kbq at aol.com Sun Oct 18 17:04:44 2015
From: wa1kbq at aol.com (Greg Gore)
Date: Sun, 18 Oct 2015 17:04:44 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <900ae.6229cdaf.435329b2@cs.com>
References: <900ae.6229cdaf.435329b2@cs.com>
Message-ID: <1507cc4cdcc-7eb1-13a14@webprd-m79.mail.aol.com>

Orange drops can be installed to look OK with some effort. I think they look a
little better in BAs than the miniature yellow plastic polys with small gauge wire
leads.

http://i104.photobucket.com/albums/m191/wa1kbq/Harris/Harris%20RF-590A-1.jpg

http://i104.photobucket.com/albums/m191/wa1kbq/Harris/Harris%20RF-590A-1.jpg

http://i104.photobucket.com/albums/m191/wa1kbq/Harris/Harris%20RF-590A-1.jpg

Greg;
WA1KBQ

-----Original Message-----
From: Robert Downs WA5CAB via BoatAnchors <boatanchors at theporch.com>
To: boatanchors <boatanchors at theporch.com>
Sent: Sat, Oct 17, 2015 12:34 am
Subject: Re: [BoatAnchors] bumble bee caps

As capacitors, electrically orange drops are good. Mechanically they are

radial lead, intended for installation on PC boards. As replacements for

axial lead paper dielectric capacitors, they are terrible. If you use them to

repair a decent military set, you end up with something that looks like it

was hacked by a clueless idiot. I standardized on axial lead metalized

polyester years ago for replacement purposes. The only problem I sometimes have
with them is that the standard lead lengths are shorter than used to be

standard on axial lead plastic or aluminum body capacitors. There is one

location in a BC-611 where they just barely reach.

In a message dated
10/16/2015 22:56:11 PM Central Daylight Time,
boatanchors at theporch.com writes:

> Russ
>
> I do remember all kinds of instructions on how to fit an orange drop to
> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
> fitted just fine. I only use those now.
>
> Best 73s
>
>

Guido
> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
> >Guido,
the truth is the new poly caps are the newest technology. Orange
> Drops are
actually old hat. Russ.
> >---- Guido Santacana <gsantacanav at gmail.com>
wrote:
> >>The only TV set that I ever restored was a 1950s RCA full of these
black
> beauties. They were all cracked. I found a pack of these that were new
and
> sealed. They tested well in my TO-4 and I sold them at the e place.
People
> bidded like crazy for them and I suddenly had BA $ available from some
.5
> and 1uF black beauties rated at 1000VDC. I don't know who bought them
but
> can guess. Why they insist on using these things beats me.
> >>
> >>
I remember that back in the 90s orange drops were the " in thing" to
> use when
replacing paper caps. They were not cheap so I kept on using the
> yellow
polypropilene caps and they are still working well.
> >>
> >>73s
> >>
>
>>Guido
> >>
> >>Guido Santacana KP4FAR
> >>

Robert & Susan Downs -
Houston
wa5cab dot com (Web Store)
MVPA
9480
____
BoatAnchors mailing
list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From wa1kbq at aol.com Sun Oct 18 17:16:48 2015
From: wa1kbq at aol.com (Greg Gore)
Date: Sun, 18 Oct 2015 17:16:48 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <1507cc4cdcc-7eb1-13a14@webprd-m79.mail.aol.com>
Message-ID: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>

Orange drops can be installed to look OK with some effort. I think they look a little better in BAs than the miniature yellow plastic polys with small gauge wire leads.

http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3075.jpg
http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3076.jpg
http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3085.jpg

Greg;
WA1KBQ

-----Original
Message-----
From: Robert Downs WA5CAB via BoatAnchors
<boatanchors at theporch.com>
To: boatanchors <boatanchors at theporch.com>
Sent:
Sat, Oct 17, 2015 12:34 am
Subject: Re: [BoatAnchors] bumble bee caps

As
capacitors, electrically orange drops are good. Mechanically they are

radial
lead, intended for installation on PC boards. As replacements for

axial lead
paper dielectric capacitors, they are terrible. If you use them to

repair a
decent military set, you end up with something that looks like it

was hacked
by a clueless idiot. I standardized on axial lead metalized

polyester years

ago for replacement purposes. The only problem I sometimes
have
with them is
that the standard lead lengths are shorter than used to be

standard on axial
lead plastic or aluminum body capacitors. There is one

location in a BC-611
where they just barely reach.

In a message dated
10/16/2015 22:56:11 PM
Central Daylight Time,
boatanchors at theporch.com writes:

> Russ
>
> I do
remember all kinds of instructions on how to fit an orange
drop to
> replace
the dreaded C663 cap in the IF deck of the R390A. A
polypropilene
> fitted
just fine. I only use those now.
>
> Best 73s
>
>
Guido
> On Friday,
October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
> >Guido,
the truth is the new
poly caps are the newest technology. Orange
> Drops are
actually old hat.
Russ.
> >---- Guido Santacana <gsantacanav at gmail.com>
wrote:
> >>The only TV
set that I ever restored was a 1950s RCA full of these
black
> beauties. They
were all cracked. I found a pack of these that were new
and
> sealed. They

tested well in my TO-4 and I sold them at the e place.
People
> bidded like
crazy for them and I suddenly had BA $ available from some
.5
> and 1uF black
beauties rated at 1000VDC. I don't know who bought them
but
> can guess. Why
they insist on using these things beats me.
> >>
> >>
I remember that back
in the 90s orange drops were the " in thing" to
> use when
replacing paper
caps. They were not cheap so I kept on using the
> yellow
polypropilene caps
and they are still working well.
> >>
> >>73s
> >>
>
>>Guido
> >>
>
>>Guido Santacana KP4FAR
> >>

Robert & Susan Downs -
Houston
wa5cab dot
com (Web
Store)
MVPA
9480
____
BoatAnchors
mailing
list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

____
BoatAnchors mailing

```
list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors



From johnmb at nc.rr.com  Sun Oct 18 17:24:47 2015
From: johnmb at nc.rr.com (john)
Date: Sun, 18 Oct 2015 17:24:47 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
References: <1507cc4cdcc-7eb1-13a14@webprd-m79.mail.aol.com>
 <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
Message-ID: <6.2.1.2.2.20151018172405.04a60700@pop-server.nc.rr.com>

Very nice job Greg, and yes, that look perfectly presentable....very well
done retrofit.

73
John K5MO


At 05:16 PM 10/18/2015, Greg Gore via BoatAnchors wrote:

>Orange drops can be installed to look OK with some effort. I think they look a
>little better in BAs than the miniature yellow plastic polys with small gauge
>wire leads.
>
>http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3075.jpg
>http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3076.jpg
>http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3085.jpg
>
>Greg;
>WA1KBQ
>
>
>
>-----Original
>Message-----
>From: Robert Downs WA5CAB via BoatAnchors
><boatanchors at theporch.com>
>To: boatanchors <boatanchors at theporch.com>
>Sent:
>Sat, Oct 17, 2015 12:34 am
>Subject: Re: [BoatAnchors] bumble bee caps
>
>
>As
```

>capacitors, electrically orange drops are good. Mechanically they are
>
>radial
>lead, intended for installation on PC boards. As replacements for
>
>axial lead
>paper dielectric capacitors, they are terrible. If you use them to
>
>repair a
>decent military set, you end up with something that looks like it
>
>was hacked
>by a clueless idiot. I standardized on axial lead metalized
>
>polyester years
>ago for replacement purposes. The only problem I sometimes
>have
>with them is
>that the standard lead lengths are shorter than used to be
>
>standard on axial
>lead plastic or aluminum body capacitors. There is one
>
>location in a BC-611
>where they just barely reach.
>
>In a message dated
>10/16/2015 22:56:11 PM
>Central Daylight Time,
>boatanchors at theporch.com writes:
>
> > Russ
> >
> > I do
>remember all kinds of instructions on how to fit an orange
>drop to
> > replace
>the dreaded C663 cap in the IF deck of the R390A. A
>polypropilene
> > fitted
>just fine. I only use those now.
> >
> > Best 73s
> >
> >
>Guido
> > On Friday,
>October 16, 2015, <wb3fau55 at neo.rr.com> wrote:

> > >Guido,
>the truth is the new
>poly caps are the newest technology. Orange
> > Drops are
>actually old hat.
>Russ.
> > >---- Guido Santacana <gsantacanav at gmail.com>
>wrote:
> > >>The only TV
>set that I ever restored was a 1950s RCA full of these
>black
> > beauties. They
>were all cracked. I found a pack of these that were new
>and
> > sealed. They
>tested well in my TO-4 and I sold them at the e place.
>People
> > bidded like
>crazy for them and I suddenly had BA $ available from some
>.5
> > and 1uF black
>beauties rated at 1000VDC. I don't know who bought them
>but
> > can guess. Why
>they insist on using these things beats me.
> > >>
> > >>
>I remember that back
>in the 90s orange drops were the " in thing" to
> > use when
>replacing paper
>caps. They were not cheap so I kept on using the
> > yellow
>polypropilene caps
>and they are still working well.
> > >>
> > >>73s
> > >>
> >
> >>Guido
> > >>
> >
> >>Guido Santacana KP4FAR
> > >>
>
>Robert & Susan Downs -
>Houston
>wa5cab dot

>com (Web
>Store)
>MVPA
>9480
>____
>BoatAnchors
>mailing
>list
>BoatAnchors at theporch.com
>https://minime.theporch.com/mailman/listinfo/boatanchors
>
>
>
>____
>BoatAnchors mailing
>list
>BoatAnchors at theporch.com
>https://minime.theporch.com/mailman/listinfo/boatanchors
>
>
>____
>BoatAnchors mailing list
>BoatAnchors at theporch.com
>https://minime.theporch.com/mailman/listinfo/boatanchors

"Patriotism is supporting your country all the time, and your government
when it deserves it."

---

This email has been checked for viruses by Avast antivirus software.
http://www.avast.com

From jp at cs.unc.edu Sun Oct 18 17:34:45 2015
From: jp at cs.unc.edu (John Poulton)
Date: Sun, 18 Oct 2015 17:34:45 -0400
Subject: [BoatAnchors] FTAGH: Bunch of CRT's for postage
Message-ID: <CAKtz7fcBR7OBvf2URsA9bH7D+7msDFLaUzd6r4DQVBHb3ONkDA@mail.gmail.com>

Folks,

I have a bunch of CRTs of various kinds that I would like to find another
home for (can't bear to toss them out..).

1 each: 3AP1, 3BP1A, 3GP1, 5CP1, 5UP7, 7BP7

2 each: 5FP7

Free, except for shipping, which might turn out to be significant.
Alternatively, I'd be happy to deliver them to any of the upcoming local
hamfests (Benson, NC, Richmond, VA, or (maybe) Lawrenceville, GA).

73, John K4OZY

From w7qho at aol.com Sun Oct 18 19:15:20 2015
From: w7qho at aol.com (Dennis DuValll)
Date: Sun, 18 Oct 2015 16:15:20 -0700
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
References: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
Message-ID: <CDED5CD1-C04B-466A-8A87-502979406D55@aol.com>

Look FB to me. I recapped my AR-88 with them (Orange Drops).

Speaking of capacitor types I assume the Sprague ?Vitamin Q? units are forever?

Dennis D. W7QHO
Glendale, CA

****

> On Oct 18, 2015, at 2:16 PM, Greg Gore via BoatAnchors <boatanchors at theporch.com> wrote:
>
>
> Orange drops can be installed to look OK with some effort. I think they look a
> little better in BAs than the miniature yellow plastic polys with small gauge
> wire leads.
>
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3075.jpg
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3076.jpg
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3085.jpg
>
> Greg;
> WA1KBQ
>
>

From 1oldlens1 at ix.netcom.com Sun Oct 18 19:21:04 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sun, 18 Oct 2015 16:21:04 -0700

Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <CDED5CD1-C04B-466A-8A87-502979406D55@aol.com>
References: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
 <CDED5CD1-C04B-466A-8A87-502979406D55@aol.com>
Message-ID: <56242960.3070007@ix.netcom.com>

    AFAIK the Vitamin-Q caps are very long lived but are still paper
caps. I would not shot gun them as I do BBs but would certainly check them.

On 10/18/2015 4:15 PM, Dennis DuValll via BoatAnchors wrote:
> Look FB to me. I recapped my AR-88 with them (Orange Drops).
>
> Speaking of capacitor types I assume the Sprague ?Vitamin Q? units are forever?
>
> Dennis D. W7QHO
> Glendale, CA
>
> ***************
>
>> On Oct 18, 2015, at 2:16 PM, Greg Gore via BoatAnchors <boatanchors at
theporch.com> wrote:
>>
>>
>> Orange drops can be installed to look OK with some effort. I think they look a
>> little better in BAs than the miniature yellow plastic polys with small gauge
>> wire leads.
>>
>> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3075.jpg
>> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3076.jpg
>> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3085.jpg
>>
>> Greg;
>> WA1KBQ
>>
>>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From gumbear at pacbell.net Sun Oct 18 20:22:47 2015

```
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 18 Oct 2015 17:22:47 -0700
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
References: <1507ccfda08-7eb1-13a63@webprd-m79.mail.aol.com>
Message-ID: <A3D89F36E87A4B5CBF619D24EF93275A@KB6NAX>

> ........Orange drops can be installed to look OK with some effort. I think
> they look a
little better in BAs than the miniature yellow plastic polys with small
gauge
wire leads.  .........

That's excellent workmanship, Greg.  You have maintained the esthetics of a
well made receiver.   Harder to do with the sloppy wiring found in some
receivers.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant



From arc5 at ix.netcom.com  Sun Oct 18 20:35:15 2015
From: arc5 at ix.netcom.com (=?utf-8?B?YXJjNUBpeC5uZXRjb20uY29t?=)
Date: Mon, 19 Oct 2015 00:35:15 GMT
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
Message-ID: <000f4242.2dd0aed95b085f76@ix.netcom.com>







    Any tips on recapping the AR - 88, Dennis? I have one in line for this winter.
    Sent from my ain't-so-smartphone.



From 1oldlens1 at ix.netcom.com  Sun Oct 18 21:27:09 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Sun, 18 Oct 2015 18:27:09 -0700
```

Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <000f4242.2dd0aed95b085f76@ix.netcom.com>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
Message-ID: <562446ED.1000803@ix.netcom.com>

I can put in a little here. The original AR-88A had only oil filled paper caps, RCA made mica caps, silver mica caps and temperature compensating ceramic caps. There are no electrolytic caps at all in the receiver. The oil filled paper caps should have been very long lived but, at least some, developed leaky seals. In my receiver my guess is that the seals broke down perhaps twenty years ago but I have no way of knowing. Curiously the caps in the tin cans still performed pretty well but had to go. Mine is a war-time receiver so some caps, which were originally RCA-made mica caps were Micamold and Solar paper caps, used, I think, because mica became a strategic material. These were very leaky and the cases of the Micamold caps were cracking.

I had one try at restuffing a metal can and rapidly gave it up. You might be able to get them apart with a very large soldering iron, a plumber's iron but my 200 watt job was far from adequate. So, I used terminal strips. I couldn't find any with exactly the right dimensions to fit the screw holes for the oil filled cans so just cut apart larger ones to make them fit. I used epoxy dipped polypropylene caps. They do not look right but work very well. I put toothed lockwashers under between the mounting legs of the strips, which are also the ground points and used the original screws, washers, and nuts.

In some places I used point-to-point connections of the new capacitors.

The Micamold caps were also replaced with polypropylene caps but they were poinit to point already so the new caps just went in their places. My receiver had only one or two of the RCA type micas, odd lozenge shaped capacitors, in my set they are an odd violet-pink color but I've seen them in brown too. These tested just fine so I left them. All of the silver mica caps were OK as were all of the ceramic TC caps which are of the "dog-bone" type. I did not have to replace the three section paper filter cap since it was not leaking oil and seemed to perform OK. If I had to replace it I would not try to restuff it but would make a new container and put three modern plastic film caps in. Electrolytics would do but I like the idea of not having any. There is no cathode by-pass in the audio stage, rather the set uses "back bias" a way of getting fixed bias by running the ground return slightly above ground. There is a danger in this if you get a bias failure but I have not heard of any AR-88s failing from this problem.

The coupling caps for the audio were again originally RCA mica caps but were Micamold caps in mine, they are now polypropylene caps.

The AR-88 is not difficult to work on, the main problem is its weight. The chassis alone weighs around 85 lbs. I can manage to maneuver mine around on the bench but can't lift it (bad back).

I found a few bad resistors in mine, mainly those with values above maybe 150Kohms, which had gone very high in value. All are standard or close to standard values. After restoring mine it is an exceptional performer. RCA used the very latest tubes available at the time and was at least ten years ahead of the pack. I have no idea what the original cost was, since the sets were never sold commercially, but it was likely close to $1000 c.1940.

A note: the power and function switch on the front has a Trans position. This cuts off the B+ from most of the set and closes an pair of terminals on the back to energize an external relay. The problem is that in stand-by the B+ soars and is too high for both the filter caps and probably the output transformer. I shorted the B+ terminal on the function switch so that the B+ remains connected in all positions. There is no way to mute the receiver without some modification. Note that the meter arrangement (most sets did not have meters but they could be installed) is to measure the cathode current of one IF stage. If this lead is opened the receiver is muted. You can do this whether or not you install a meter.

Its very helpful to have a sweep oscillator to align the IF.

There is a great deal of information about the AR-88 at http://www.radioblvd.com/

Also see the archives of the RCA Equipment list at

http://mailman.qth.net/mailman/listinfo/rca

This is almost an AR-88 list.

Good luck with your receiver, they are remarkable and well worth the effort to restore.

On 10/18/2015 5:35 PM, arc5 at ix.netcom.com via BoatAnchors wrote:

>
>
>
>
>
> Any tips on recapping the AR - 88, Dennis? I have one in line for this winter.
> Sent from my ain't-so-smartphone.
>
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com

WB6KBL

From wb3fau55 at neo.rr.com Sun Oct 18 21:30:57 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sun, 18 Oct 2015 21:30:57 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <CDED5CD1-C04B-466A-8A87-502979406D55@aol.com>
Message-ID: <20151019013057.8VYIU.84773.root@cdptpa-web26>

Dennis- I have found bad Vitamin Qs bad in military applications...Russ.
---- Dennis DuValll via BoatAnchors <boatanchors at theporch.com> wrote:
> Look FB to me. I recapped my AR-88 with them (Orange Drops).

Speaking of capacitor types I assume the Sprague ?Vitamin Q? units are forever?

Dennis D. W7QHO
Glendale, CA

****

> On Oct 18, 2015, at 2:16 PM, Greg Gore via BoatAnchors <boatanchors at theporch.com> wrote:
>
>
> Orange drops can be installed to look OK with some effort. I think they look a
> little better in BAs than the miniature yellow plastic polys with small gauge
> wire leads.
>
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3075.jpg
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3076.jpg
> http://i104.photobucket.com/albums/m191/wa1kbq/SX-88%20-%20444/IMG_3085.jpg
>
> Greg;
> WA1KBQ
>
>

____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From gsantacanav at gmail.com Sun Oct 18 22:16:11 2015

From: gsantacanav at gmail.com (Guido Santacana)
Date: Sun, 18 Oct 2015 22:16:11 -0400
Subject: [BoatAnchors] bumble bee caps
In-Reply-To: <20151019012131.BH2TT.84714.root@cdptpa-web26>
References: <20151019012131.BH2TT.84714.root@cdptpa-web26>
Message-ID: <FFC52B92-82F9-4A76-B4C0-AAEB700BB489@gmail.com>

Russ,

I could not say. It is supposed to be the other way around I think. I like its history about being used in the Kon Tiki expedition.

Guido

Sent from my iPad

On Oct 18, 2015, at 9:21 PM, <wb3fau55 at neo.rr.com> wrote:

> Guido, some say the 173 is better than a 183? Russ.
> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>> The NC173 is such a nice receiver. Mine has been here for 30+ years with a 5 year sabbatical at a friend's shack. After a sabbatical for my last remaining R390A receiver that ended up in its death I don't approve them anymore. The last repair in the NC173 was the AVC circuit, a couple of bad micas.
>>
>> Best 73s
>>
>> Guido
>>
>> Guido Santacana KP4FAR
>>
>> Sent from my iPad
>>
>> On Oct 17, 2015, at 3:08 PM, <wb3fau55 at neo.rr.com> wrote:
>>
>>> Guido, I had a 173, nice old GC cruiser. I was just a teenager at the time. There was an Olsen store nearby. I used Olsen Oilcon caps. They worked, I have no idea if they lasted? Russ.
>>> ---- Guido Santacana via BoatAnchors <boatanchors at theporch.com> wrote:
>>>>
>>>> In my early days of BA restorations I used orange drops a lot. My NC173 is full of them and it looks awful underneath the chassis. They were difficult to fit in where axial leads should go and never looked natural there. Nonetheless they have done the job for years.
>>>>
>>>> In the case of mica caps my worst scenario was a Navy REP entertainment receiver in which all except one of the micas were leaky or completely shorted.

Values were odd and had to be approximated but it the end it came out well.
>>>>
>>>> 73s
>>>>
>>>> Guido
>>>>
>>>> Guido Santacana KP4FAR
>>>> Sent from my iPad
>>>>
>>>> On Oct 17, 2015, at 12:33 AM, Robert Downs WA5CAB via BoatAnchors
<boatanchors at theporch.com> wrote:
>>>>
>>>>> As capacitors, electrically orange drops are good. Mechanically they are
>>>>> radial lead, intended for installation on PC boards. As replacements for
>>>>> axial lead paper dielectric capacitors, they are terrible. If you use them
to
>>>>> repair a decent military set, you end up with something that looks like it
>>>>> was hacked by a clueless idiot. I standardized on axial lead metalized
>>>>> polyester years ago for replacement purposes. The only problem I sometimes
have
>>>>> with them is that the standard lead lengths are shorter than used to be
>>>>> standard on axial lead plastic or aluminum body capacitors. There is one
>>>>> location in a BC-611 where they just barely reach.
>>>>>
>>>>> In a message dated 10/16/2015 22:56:11 PM Central Daylight Time,
>>>>> boatanchors at theporch.com writes:
>>>>>> Russ
>>>>>>
>>>>>> I do remember all kinds of instructions on how to fit an orange drop to
>>>>>> replace the dreaded C663 cap in the IF deck of the R390A. A polypropilene
>>>>>> fitted just fine. I only use those now.
>>>>>>
>>>>>> Best 73s
>>>>>>
>>>>>> Guido
>>>>>> On Friday, October 16, 2015, <wb3fau55 at neo.rr.com> wrote:
>>>>>>> Guido, the truth is the new poly caps are the newest technology. Orange
>>>>>> Drops are actually old hat. Russ.
>>>>>>> ---- Guido Santacana <gsantacanav at gmail.com> wrote:
>>>>>>>> The only TV set that I ever restored was a 1950s RCA full of these black
>>>>>> beauties. They were all cracked. I found a pack of these that were new and
>>>>>> sealed. They tested well in my TO-4 and I sold them at the e place. People
>>>>>> bidded like crazy for them and I suddenly had BA $ available from some .5
>>>>>> and 1uF black beauties rated at 1000VDC. I don't know who bought them but
>>>>>> can guess. Why they insist on using these things beats me.
>>>>>>>>
>>>>>>>> I remember that back in the 90s orange drops were the " in thing" to
>>>>>> use when replacing paper caps. They were not cheap so I kept on using the

>>>>>> yellow polypropilene caps and they are still working well.
>>>>>>>>
>>>>>>>> 73s
>>>>>>>>
>>>>>>>> Guido
>>>>>>>>
>>>>>>>> Guido Santacana KP4FAR
>>>>>>>>
>>>>>
>>>>> Robert & Susan Downs - Houston
>>>>> wa5cab dot com (Web Store)
>>>>> MVPA 9480
>>>>> ____
>>>>> BoatAnchors mailing list
>>>>> BoatAnchors at theporch.com
>>>>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>>> ____
>>>> BoatAnchors mailing list
>>>> BoatAnchors at theporch.com
>>>> https://minime.theporch.com/mailman/listinfo/boatanchors
>>>
>

From arc5 at ix.netcom.com Sun Oct 18 22:19:19 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 18 Oct 2015 21:19:19 -0500
Subject: [BoatAnchors] Vitamin Q's
In-Reply-To: <20151019013057.8VYIU.84773.root@cdptpa-web26>
References: <20151019013057.8VYIU.84773.root@cdptpa-web26>
Message-ID: <E1B067920F8640CF84E3FF979262F2C3@DaddyPC>

I have recently replaced one bad Vitamin Q cap in the
audio module of an R-648/ARR-41 receiver.
Best of my memory, that's the only one I've ever changed.

From gumbear at pacbell.net Sun Oct 18 23:37:49 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Sun, 18 Oct 2015 20:37:49 -0700
Subject: [BoatAnchors] Vitamin Q's
In-Reply-To: <E1B067920F8640CF84E3FF979262F2C3@DaddyPC>
References: <20151019013057.8VYIU.84773.root@cdptpa-web26>
 <E1B067920F8640CF84E3FF979262F2C3@DaddyPC>
Message-ID: <934CD23EBE7C4F58A2A954BC1600105C@KB6NAX>

> ....I have recently replaced one bad Vitamin Q cap in the

audio module of an R-648/ARR-41 receiver.
Best of my memory, that's the only one I've ever changed

I have a bunch of .047uF 600V Vitamin Q's but I'm not sanguine about them because even though they are protected from moisture ingress they still are paper dielectric capacitors. Paper is a complex substance and treating it with resins or oils to improve its dielectric qualities has a lot of art associated with it and not enough science, IMO. Mfr's had to do what worked in those days. These days atomic physics is at the base of materials creation, the reason why teflon, polystyrene, polysulfone, polyester (Mylar) and polypropylene capacitors are nearly perfect capacitors compared to the vagaries of paper capacitors. I guess I'll dump the V-Q's on a passing audiophoole >:-(

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From dave at horsfall.org Mon Oct 19 03:40:09 2015
From: dave at horsfall.org (Dave Horsfall)
Date: Mon, 19 Oct 2015 18:40:09 +1100 (EST)
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <562446ED.1000803@ix.netcom.com>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
Message-ID: <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>

I've seen a number of references to oil-filled caps in this thread. It wouldn't be that nasty carcinogenic PCB stuff, would it? If so, you might want to think twice about retaining them... And do not simply throw them out.

--
Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From gumbear at pacbell.net Mon Oct 19 03:53:19 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 19 Oct 2015 00:53:19 -0700
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>

References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
 <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>
Message-ID: <8A5B000EB4D346DA8CC6C889ED8468AE@KB6NAX>

> I've seen a number of references to oil-filled caps in this thread. It wouldn't be that nasty carcinogenic PCB stuff, would it? If so, you might want to think twice about retaining them... And do not simply throw them out.

Hi Dave - It has been drawn into question that the Sprague caps with the metal extension tube on one end the lead comes through are oil filled caps. In a forum (sorry, don't have the link handy) that discussed Black Beauties extensively one contributor cut one of those caps open and found no oil. I'd say I have to agree with him because the ones I've come across where I heated the lead too long and it came out of the tube there was no oil following the solder. On another note, the PCB hysteria was overwrought. In small quantities it's not a cancer threat. Just don't drink it, bath in it, and wash your hands before you eat after handling it.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From vilgotch at bigpond.net.au Mon Oct 19 04:33:57 2015
From: vilgotch at bigpond.net.au (Morris Odell)
Date: Mon, 19 Oct 2015 19:33:57 +1100
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <562446ED.1000803@ix.netcom.com>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
Message-ID: <001b01d10a48$e5688390$b0398ab0$@bigpond.net.au>

> The original AR-88A had only oil filled paper caps,
> I had one try at restuffing a metal can and rapidly gave it up.
> You might be able to get them apart with a very large soldering iron, a plumber's iron but my 200 watt job was far from adequate.

I restuffed the cans in my AR88 but had the helluva job getting them apart. My 100W iron was not enough, in the end I used a gas torch. I think the concern is the effect of heat on the feedthrough bushings. Mine seemed to work OK and I've done similar in other gear but the rubber in those bushings is just as old as the cap innards and I do worry about them.

If I ever go there again I might unleash the HV insulation tester on them just to see what happens.

Morris

From navy.radio at gmail.com Mon Oct 19 05:26:01 2015
From: navy.radio at gmail.com (Nick England)
Date: Mon, 19 Oct 2015 05:26:01 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <8A5B000EB4D346DA8CC6C889ED8468AE@KB6NAX>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
 <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>
 <8A5B000EB4D346DA8CC6C889ED8468AE@KB6NAX>
Message-ID: <CAB55hNep2YtRUx2OwEvjuRArh7GdnUUs4UipUs5Vn9Jej4iHnw@mail.gmail.com>

Not oil filled but the Sprague data sheet says Black Beauties rated 600v and above use oil-impregnated paper. As Arden notes, probably best not to eat the paper.

On Monday, October 19, 2015, Arden Allen via BoatAnchors
>
>
> Hi Dave - It has been drawn into question that the Sprague caps with the metal extension tube on one end the lead comes through are oil filled caps. In a forum (sorry, don't have the link handy) that discussed Black Beauties extensively one contributor cut one of those caps open and found no oil. I'd say I have to agree with him because the ones I've come across where I heated the lead too long and it came out of the tube there was no oil following the solder. On another note, the PCB hysteria was overwrought. In small quantities it's not a cancer threat. Just don't drink it, bath in it, and wash your hands before you eat after handling it.
>
> Arden Allen
> KB6NAX
>
>

--

Nick England K4NYW
www.navy-radio.com

From spr at earthlink.net Mon Oct 19 10:25:54 2015
From: spr at earthlink.net (Scott Robinson)
Date: Mon, 19 Oct 2015 07:25:54 -0700
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <001b01d10a48$e5688390$b0398ab0$@bigpond.net.au>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
 <001b01d10a48$e5688390$b0398ab0$@bigpond.net.au>
Message-ID: <5624FD72.5030007@earthlink.net>

Folks,

Watch out for bathtub caps!

After you get done checking for leakage between terminals, *then* check for leakage from each terminal to the metal case. I've found then leaky in both ways.

Regards,

Scott

On 10/19/15 1:33 AM, Morris Odell via BoatAnchors wrote:
>
>> The original AR-88A had only oil filled paper caps,
>> I had one try at restuffing a metal can and rapidly gave it up.
>> You might be able to get them apart with a very large soldering iron, a
> plumber's iron but my 200 watt job was far from adequate.
>
> I restuffed the cans in my AR88 but had the helluva job getting them apart.
> My 100W iron was not enough, in the end I used a gas torch. I think the
> concern is the effect of heat on the feedthrough bushings. Mine seemed to
> work OK and I've done similar in other gear but the rubber in those bushings
> is just as old as the cap innards and I do worry about them.
>
> If I ever go there again I might unleash the HV insulation tester on them
> just to see what happens.
>
> Morris
>
>
>
>
> ____

> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

From 1oldlens1 at ix.netcom.com Mon Oct 19 12:42:27 2015
From: 1oldlens1 at ix.netcom.com (Richard Knoppow)
Date: Mon, 19 Oct 2015 09:42:27 -0700
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>
References: <000f4242.2dd0aed95b085f76@ix.netcom.com>
 <562446ED.1000803@ix.netcom.com>
 <alpine.BSF.2.11.1510191837420.51895@aneurin.horsfall.org>
Message-ID: <56251D73.9040801@ix.netcom.com>

This is certainly try of caps in metal cans like those in the AR-88. The oil was probably a PCB. This stuff was made by Monsanto and sold to makers of oil filled capacitors and transformers for decades. It is similar to mineral oil but has much higher flash and ignition points and other virtues as far as its application goes. Its also the main constituent of the stuff General Electric polluted the Hudson river with.

As someone else posted I have never found any actual oil in high voltage Black Beauty caps, the type with the filler tube at one end, but the paper dielectric does seem to have been treated with something.

On 10/19/2015 12:40 AM, Dave Horsfall via BoatAnchors wrote:
> I've seen a number of references to oil-filled caps in this thread. It
> wouldn't be that nasty carcinogenic PCB stuff, would it? If so, you might
> want to think twice about retaining them... And do not simply throw them
> out.
>

--
Richard Knoppow
1oldlens1 at ix.netcom.com
WB6KBL

From arc5 at ix.netcom.com Mon Oct 19 12:55:59 2015
From: arc5 at ix.netcom.com (=?utf-8?B?YXJjNUBpeC5uZXRjb20uY29t?=)
Date: Mon, 19 Oct 2015 16:55:59 GMT
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
Message-ID: <000f4244.6fe1d1aa12533b31@ix.netcom.com>

Awww, those PCBs never affected me. ?And my other head agrees with me.

Sent from my ain't-so-smartphone.

From arc5 at ix.netcom.com Sun Oct 18 12:33:51 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 18 Oct 2015 11:33:51 -0500
Subject: [BoatAnchors] Notes and Tips: RCA AVR-20, AVT-112, AVA-126
Message-ID: <74CDD215F7EB4880A8021126198FF4AC@DaddyPC>

Working with an friend of long acquaintance (blessed to know someone smarter than me!) on ressurecting the popular WWII-era RCA AVR-20/AVT-112/AVA-126 light aircraft set.

Copying some of my notes here for the one or two people in the universe besides we two who might be interested ;-).

On the little RCA sets:
First thing I recommend is to put the sets on the bench and work-over every single ground point you can find. That includes things like screws that hold tube sockets and terminal strips, nuts that hold the IF cans, etc.
Usually, a little loosen/tighten "tweek" is all it takes.
I'm finding this problem in just about every WWII era BA I work with these days and suspect it will infect the 60s-70s stuff before long. "Old age oxidation."
I had an ART-13 transmitter on the bench a few years ago. "Ground" from one end of the chassis to the other measured 1300 Ohms. After going over all the ground points, it was just a couple of Ohms.
Also had a Ranger (not Johnson) light aircraft transmitter with no modulation. A terminal strip was grounded with a screw through the chassis. The screw head was pulled up tight against the chassis skirt and read completely OPEN to the chassis. One quarter turn back and forth to break the oxidation and modulation was restored.

On the AVR-20:

I've reworked three of them. ALL the paper
caps were bad and all the resistors over about about
220K as well. The biggest pain is the "multi-cap"
can right behind the tuning cap. There are a bunch
of individual caps in that can with one end tied together
to that black lead that comes out the middle to ground.
All of them inside that can are likely bad, which includes
cathode bypasses. They are potted in bee's wax.
I used a heat gun to soften it and pull out the gloop.
Restuffed minus the wax.

IF cans: Only thing in there besides the coils
AFAIK are some 120 pFd caps. I've never had one
be bad and never had to remove one.

Pots and switches will need some De-Ox-It.
I've leached it into the front of the toggle switch around
the toggle and that got it working.

When you align the set, beware of those three "plunger"
caps behind the 6K8 and in front of the 6S7:
C23, 24 and 25, the RF, MIXER and LO trimmers.
They have this odd conical "compression nut" on one end
which you must loosen to move the plungers in-and-out
to adjust them. These are easily broken.
Not as easily as the "egg shell" LO trimmer caps in the
ART-13, but fragile.
IMHO, I will trade a few DB of performance and/or
a few KC of dial calibration for the sake of preservation.
Unless the alignment is just beyond what you can tolerate,
I'd leave them alone. If they must be tweeked,
proceed with caution; don't force anything.
I'm living with a cracked one now.
I foolishly tried a drop of penetrating oil on the
threads of the remaining two, which of course
"penetrated" right into the caps, which I then had to
remove and clean. What a pain and just recompense
for such nit-wittery.
Using the sets on 40:
The receiver in the BC-474 is, with a few changes, just
a re-packaged AVR-20. Although both the receiver and
transmitter are speced below 7 MC, by doubling in the
transmitter PA I've worked many states on 40 CW with
the set. The receiver will cover the low end of 40 as-is,
but I've never checked if it will go to 7160 KC.
Also don't know if the AVT-112 will go there fundimental
or if it will require doubling as well.
If nothing interferes (and something usually does),

I will break-out the set and see what works and what doesn't. If the receiver can't quit stretch, one can of course tweek the LO a bit. There's messing with those plunger caps again, LOL.

One oddity I've seen on all AVR-20s and on the receiver in the BC-474: When tuned all the way up to 40 meters, the output of the receiver develops a "ripple" sound, as though the filter caps were dying in a line-operated set. At first I wondered if this were some sort of weird "common mode" thing, but operation from batteries did not cure it. Makes me wonder if the LO is "sputtering" at the high end or if the IF is trying to break into oscillation. But then, is the ripple freq being so close to 60 Hz coincidence? I haven't investigated further as it's just a minor annoyance on CW. On phone, it may be grating. I should look further, if I ever get the time to fix my busted scope, HI.
On the AVT-112:
Only thing beyond grounds and the obvious caps and resistors I can think of at the moment is the fragility of the antenna tuning assembly. I can't imagine how it would have lasted if the set had to be retuned regularly. Be gentle.
When I get the set out, I'll make notes on tuning indications for 50-ohm antennas and etc. The antenna switching relay (and the ones in the power supply) just needed burnishing with some kraft paper soaked in De-Ox-it.

On the AVA-126:
Worked on three of them. Never found a single good cap; they all were bad or started going bad shortly after ressurection. I've also had to "kick-start" the oxidized vibrator contacts with higher voltages. Those took some patience and I did have to remove one from its can to burnish the contacts, but all were eventually recovered. I've found a couple of 0Z4 rectifiers that were "hinky," the output swinging in random amounts. Guess they're getting "long in the tooth." Replaced with NOS and had no further problems with that.
Will let you know what I find with the set on the bench. All I can think of for now.

A QSO on 7160 with these sets on each end would be cool indeed.

73 Dave AB5S

From mike_25-z at aafradio.org Mon Oct 19 17:29:06 2015
From: mike_25-z at aafradio.org (aafradio)
Date: Mon, 19 Oct 2015 17:29:06 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <000f4244.6fe1d1aa12533b31@ix.netcom.com>
References: <000f4244.6fe1d1aa12533b31@ix.netcom.com>
Message-ID: <562560A2.3050908@aafradio.org>

It's about time to see if anyone thinks WD-40 would be somehow useful here.

On 10/19/2015 12:55 PM, David Stinson via BoatAnchors wrote:
>   Awww, those PCBs never affected me. And my other head agrees with me.

From johnmb at nc.rr.com Mon Oct 19 17:52:15 2015
From: johnmb at nc.rr.com (john)
Date: Mon, 19 Oct 2015 17:52:15 -0400
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <562560A2.3050908@aafradio.org>
References: <000f4244.6fe1d1aa12533b31@ix.netcom.com>
 <562560A2.3050908@aafradio.org>
Message-ID: <6.2.1.2.2.20151019175133.04cd7d10@pop-server.nc.rr.com>

Only after you destro...er...wash the rig in the dishwasher!

John K5MO

At 05:29 PM 10/19/2015, aafradio via BoatAnchors wrote:
>It's about time to see if anyone thinks WD-40 would be somehow useful here.

This email has been checked for viruses by Avast antivirus software.
http://www.avast.com

From dave at horsfall.org Mon Oct 19 17:57:08 2015
From: dave at horsfall.org (Dave Horsfall)
Date: Tue, 20 Oct 2015 08:57:08 +1100 (EST)
Subject: [BoatAnchors] bumble bee caps; Correct Pictures This Time
In-Reply-To: <6.2.1.2.2.20151019175133.04cd7d10@pop-server.nc.rr.com>
References: <000f4244.6fe1d1aa12533b31@ix.netcom.com>
 <562560A2.3050908@aafradio.org>
 <6.2.1.2.2.20151019175133.04cd7d10@pop-server.nc.rr.com>

Message-ID: <alpine.BSF.2.11.1510200855120.51895@aneurin.horsfall.org>

On Mon, 19 Oct 2015, john via BoatAnchors wrote:

[WD-40]

> Only after you destro...er...wash the rig in the dishwasher!

I thought we were discussing applying WD-40 to the OM's second head...

--
Dave Horsfall DTM (VK2KFU) "Those who don't understand security will suffer."

From Paul.Thekan at cpii.com Tue Oct 20 12:30:53 2015
From: Paul.Thekan at cpii.com (Thekan, Paul)
Date: Tue, 20 Oct 2015 16:30:53 +0000
Subject: [BoatAnchors] WTD :COL 23410 remote for the Collins TCZ
In-Reply-To: <07afa6f46edc4b5495a36a2b52532b49@Gold.cpii.com>
References: <6d82b084f7884ac8a83874f6fb565fd5@Gold.cpii.com>
 <07afa6f46edc4b5495a36a2b52532b49@Gold.cpii.com>
Message-ID: <b85f62fa5ac84a1eb95a90372858b3c7@Gold.cpii.com>

Would like to find the remote used for the Collins TCZ (ART 13 used on shipboard)

It looks similar to the TCS remote having a speaker and similar controls but additional control switch for selecting the 10 preset channels on the xmtr.

Speaker was hooked up to whatever rcvr was being used with the TCZ.

Thanks
Paul
N6FEG

This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient(s) is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

From wwatson5 at sbcglobal.net Wed Oct 21 13:31:49 2015
From: wwatson5 at sbcglobal.net (William Watson)
Date: Wed, 21 Oct 2015 17:31:49 +0000 (UTC)
Subject: [BoatAnchors] RCA AR-88 For Sale
References: <457466087.650907.1445448709208.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <457466087.650907.1445448709208.JavaMail.yahoo@mail.yahoo.com>

I have a very nice (and very heavy!) RCA AR-88 with an (almost) matching RCA speaker.? It is in excellent operating condition.? These are excellent radios, with wonderful audio. I would like to sell it and I am asking $750, picked up in Edmond, OK.? Satisfaction guaranteed or money back.? A nice looking S-meter has been added.? I do not want to ship it because of its weight.
Joe WatsonW5WBR

From navy.radio at gmail.com Sat Oct 24 13:10:50 2015
From: navy.radio at gmail.com (Nick England)
Date: Sat, 24 Oct 2015 13:10:50 -0400
Subject: [BoatAnchors] tubes, test gear,
     some milsurplus - estate - Minerva OH
Message-ID: <CAB55hNdcGwNwoGHkKN=YfzDEsyPuOMZKfg_o=G0bUmo7adnFwQ@mail.gmail.com>

Pick up in Minerva OH

Michael Zawaski <westmontinc at gmail.com> is cleaning out his father-in-law's estate.

He's be happy if someone just gave him a lump sum and took it all away

Looks like lots of test gear, tubes, some radar, some milsurplus stuff

Lab Equipment
https://www.dropbox.com/sh/eihqgymjo3zu6rz/AADz_IQveEghhak9qC8fJ4O_a?dl=0
Vacuum tubes
https://www.dropbox.com/sh/99t86v1ryjqda72/AABX_g4tk7AP3ZAsS-U_7_S1a?dl=0

From w7qho at aol.com Sat Oct 24 21:24:10 2015
From: w7qho at aol.com (Dennis DuValll)
Date: Sat, 24 Oct 2015 18:24:10 -0700
Subject: [BoatAnchors] AVR & AVT Radios For Sale
Message-ID: <AA1DA2B3-4975-42DC-9537-072E012165EC@aol.com>

OK, .et?s try this again,

For Sale:

Two (2) AVR-20A , 12 volt receivers, dirty but complete and restorable. One with it?s cabinet and one without.

One (1) AVT-112A transmitter, 6 volt. Pristine condition, looks like NOS.

Offers?..

Dennis D. W7QHO
Glendale, CA

From wb0eq at yahoo.com Mon Oct 26 18:41:41 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Mon, 26 Oct 2015 22:41:41 +0000 (UTC)
Subject: [BoatAnchors] Mystery interference
References: <646952138.3456176.1445899301536.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <646952138.3456176.1445899301536.JavaMail.yahoo@mail.yahoo.com>

Just been working on a multi-unit setup, measure tiny bits of audio distortion.
The stuff I'm using is vintage BA--Heath HD-1 Harmonic Distortion analyzer, Daven ME-6/U AC VTVM, Hewlett-Packard 200CD AF oscillator, an ancient Acrosound audio amp.
Measurements were in the millivolt range.? The results kept jumping and wandering around for no evident reason!
These are after all, BAs so I looked at each device in use but couldn't nail it down.? As I looked closely at circuitry, I moved one my all-metal goose-neck lamps to hopefully shed some light on the subject---the interference level went up & down!? The lamp was about 12" or less from the victims.? "Click" went the on-off switch of this lamp, no more of that noise.
The culprit was a Philips CFL, "Marathon Mini Decorative Twister EL/mdf 27W 120 Hz 390 mA China [of course]" radiating whatever RF these things radiate.? No, I didn't think to listen to this stuff nor do I have a spectrum analyzer handy.

Yes, use of shielded wire would've helped but all the input/outputs here are 600 ohms balanced, so I think quite immune to interference.
"A word to the wise is sufficient."
?--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From spr at earthlink.net Mon Oct 26 18:50:20 2015
From: spr at earthlink.net (spr at earthlink.net)
Date: Mon, 26 Oct 2015 15:50:20 -0700 (GMT-07:00)
Subject: [BoatAnchors] Mystery interference
Message-ID: <3681428.1445899821367.JavaMail.root@wamui-june.atl.sa.earthlink.net>

Most of the switching power supplies in CFLs and LED bulbs run at about 50 KHz.

In my experience, the LED bulbs are a lot quieter, based on audio noise floor and distortion measurements.

YOu won't want a GSM cell phone (ATT, T-mobie) near your bench, either. CDMA phones (Verizon and most others) seem fine.

/scott robinson

-----Original Message-----
>From: John Sehring via BoatAnchors <boatanchors at theporch.com>
>Sent: Oct 26, 2015 3:41 PM
>To: Boatanchors List <boatanchors at theporch.com>
>Subject: [BoatAnchors] Mystery interference
>
>Just been working on a multi-unit setup, measure tiny bits of audio distortion.
>The stuff I'm using is vintage BA--Heath HD-1 Harmonic Distortion analyzer, Daven ME-6/U AC VTVM, Hewlett-Packard 200CD AF oscillator, an ancient Acrosound audio amp.
>Measurements were in the millivolt range.? The results kept jumping and wandering around for no evident reason!
>These are after all, BAs so I looked at each device in use but couldn't nail it down.? As I looked closely at circuitry, I moved one my all-metal goose-neck lamps to hopefully shed some light on the subject---the interference level went up & down!? The lamp was about 12" or less from the victims.? "Click" went the on-off switch of this lamp, no more of that noise.
>The culprit was a Philips CFL, "Marathon Mini Decorative Twister EL/mdf 27W 120 Hz 390 mA China [of course]" radiating whatever RF these things radiate.? No, I didn't think to listen to this stuff nor do I have a spectrum analyzer handy.
>
>Yes, use of shielded wire would've helped but all the input/outputs here are 600 ohms balanced, so I think quite immune to interference.
>"A word to the wise is sufficient."
>?--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada
>____
>BoatAnchors mailing list
>BoatAnchors at theporch.com
>https://minime.theporch.com/mailman/listinfo/boatanchors

From wb0eq at yahoo.com Mon Oct 26 21:05:56 2015
From: wb0eq at yahoo.com (John Sehring)
Date: Tue, 27 Oct 2015 01:05:56 +0000 (UTC)
Subject: [BoatAnchors] Previous note "mystery interference"
References: <588478782.3524569.1445907956182.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <588478782.3524569.1445907956182.JavaMail.yahoo@mail.yahoo.com>

My previous note's happenings caused me to think about the intrinsic hum of

"modern" tube-type AC powered BAs.
Usually, such hum is not noticed or important.? But with very high gain AF amps (e.g. for magnetic LP cartridges whose output may be only milliVolts or distortion analyzers looking for tiny bits of distortion), o'scopes, AF oscillators, analyzers & such does get in the way of wanted signals.
So I thought to take a quick survey of hum-cancelling circuitry in BAs.
Probably the most frequently-found circuit is a potentiometer of around 1 kOhm bridged across the AC filament heater supply.? It's wiper is grounded? It's adjusted under specified operating conditions to null out residual hum.? The output of the device is often in AC millVolt range.

The idea is to equalize the impedance across the two sides of the filament circuit.? It's those sneaky AC gremlins lurking about which throw things off balance.

We may have forgotten that one of the peak achievements of vacuum tube designers was the development, in the late 1920s, of a tube that could operate from of an _AC_ power supply.? I think this started an enormous boom in broadcast radio sales.?
Gone were the dreadful, heavy? lead acid cells positioned under the radio.? They were in the ideal spot to eat holes in carpets!? (That's why most filaments want 6.3 volts even today.)
The simple-pot-across-the-filament-AC-supply must work well as it's the most common I think.? However, there could be more elaboration of it.

For example if there's too much heater to cathode leakage, that could modulate the signal being amplified with AC ripple even when using hum balancing.? A way to control that leakage is to put some DC bias on filaments to buck the leakage.? I've seen something like about +1/4 of the B+ voltage (at very low current) used for this purpose.? This bias might merit added caps for more smoothing.? Any AC ripple here totally defeats the purpose of this circuit!
You could in these days of throw-away Si rectifier diodes and very compact, high capacitance electrolytics easily throw together a voltage doubler with lots of filtering, placed across the filament supply.? 6.3 VAC will give around 12 VDC.
?However, an AC balance pot could be used even with DC-supplied filaments.? But its wiper would have to be grounded via, say, 0.5 uF--we want 60 Hz AC to be able to flow thru it but no DC.? Once again, balance is the name of the game.? And sometimes, even with DC applied to filaments, the center tap of the filament (think 12A_7) could bypassed to ground for RF with, say, 0.01 uF.
Fundamentally, good wiring, routing, and shielding practices must be used to tame hum!? No filament current flow allowed via the grounds, all filament wires must be carefully twisted & dressed in symmetric fashion.? No stray magnetic fields from transformers impinging tubes or unshielded wires.

Caution--? Controversial language follows:? Also, avoid use of polarized AC power plugs so they can be quickly reversed--it does often make a difference.? (I know, I know, I'm going to take brickbats on this one.)? I believe that this happens because in North America, our ordinary electricity is delivered via a 2-phase system, wired with with one side hot & the other neutral.? This is inherently unbalanced and presents this unbalance to the DUT power supply.? This imbalance may either add or buck that of the equipment.? (BTW, not so in EU & elsewhere.? They get 240 VAC single phase unbalanced.)

(The way to get balanced power in NA is to go to 240 volt circuits.? Many professionals in audio media have discovered this.? Balanced audio signal delivery systems have the same advantage, think Canon XLR connectors.)
Surprisingly I have found that typically, adding an equipment ("safety") ground to the equipment's metallics does not help with hum abatement.? Thinking about it, this safety ground should NOT be carrying ANY current at all (except faults) so it can't "do" anything.? Not surprising.

Well, 'nuf of this arcane discourse.

--John Sehring ?VE6EQR-WB0EQ??nr Calgary, Alberta, Canada

From gumbear at pacbell.net Mon Oct 26 21:11:08 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 26 Oct 2015 18:11:08 -0700
Subject: [BoatAnchors] Mystery interference
In-Reply-To: <646952138.3456176.1445899301536.JavaMail.yahoo@mail.yahoo.com>
References: <646952138.3456176.1445899301536.JavaMail.yahoo@mail.yahoo.com>
 <646952138.3456176.1445899301536.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <5730696B76014BA0831F3FE436B0919A@KB6NAX>

> ....."Click" went the on-off switch of this lamp, no more of that noise.
The culprit was a Philips CFL, "Marathon Mini Decorative Twister EL/mdf 27W 120 Hz 390 mA China [of course]" radiating whatever RF these things radiate.
....

John, I've been working on audio gear for ages now and the first thing I did when the alarm went out that incandescent lamps would be taken off the market I stocked up on 75 watt bulbs for the drafting bench style lamps that light my way into those chasms full of leaky capacitors and off value resistors. Switch mode fluorescent ballasts and CFL lamps are banned here, I already went through what you're experiencing. I measure distortions down to the noise floor, about .02% THD, of my HP 334A distortion analyzer without problems. There's not much tube gear that gets down that low but at least I know I have a "clean" bench.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.

?Immanuel Kant

From gumbear at pacbell.net Mon Oct 26 21:43:16 2015
From: gumbear at pacbell.net (Arden Allen)
Date: Mon, 26 Oct 2015 18:43:16 -0700
Subject: [BoatAnchors] Previous note "mystery interference"
In-Reply-To: <588478782.3524569.1445907956182.JavaMail.yahoo@mail.yahoo.com>
References: <588478782.3524569.1445907956182.JavaMail.yahoo@mail.yahoo.com>
 <588478782.3524569.1445907956182.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <1F9A6F3A174D4D9CA8C5CC51247A848F@KB6NAX>

> ....The way to get balanced power in NA is to go to 240 volt circuits.
> Many professionals in audio media have discovered this ....

You are absolutely right, John. The cause of hum in our home environments is the single ended AC supply where one wire is at earth potential and the other "above" earth by 120V RMS (170V peak). With a balanced to ground wiring system both wires are at opposite polarity with respect to ground thus their electrostatic and electromagnetic fields cancel each other. Ordinary Romex house wiring is sufficient to drastically reduce hum fields operated balanced to ground. One caution must be observed though. Any device connected to a branch must also present a balanced load. One sided RFI filters will unbalance the line to some extent. An isolation transformer of sufficient VA with a center tapped secondary connected to ground can provide a low hum field work area.

Arden Allen
KB6NAX

He who is cruel to animals becomes
hard also in his dealings with men.
We can judge the heart of a man by
his treatment of animals.
?Immanuel Kant

From charlesmorris800 at centurytel.net Tue Oct 27 10:35:06 2015
From: charlesmorris800 at centurytel.net (Charles)
Date: Tue, 27 Oct 2015 09:35:06 -0500
Subject: [BoatAnchors] NJE power supply schematics?
Message-ID: <2BE524FE90D143B0B69E1941F8509502@CharlesHPLaptop>

Does anyone have a schematic for a '60's-vintage NJE power supply, model TR-36-1?
It's not super-complicated and I could trace it out but that's the laborious

way. No luck on Google.

I'm thinking of just ripping the guts out and replacing with an LM317 and a "helper" pass transistor. It's only 1 amp (but the adjustable regs can't maintain full output current with more than 10v Vin-Vout)...
thanks
Charles

From garygarlic at earthlink.net Tue Oct 27 16:23:13 2015
From: garygarlic at earthlink.net (Gary Woods)
Date: Tue, 27 Oct 2015 16:23:13 -0400
Subject: [BoatAnchors] Free to good home: Tektronix 151-0346-00 transistor
Message-ID: <6vmv2btahaie1bkqgile5q719p11200dp7@4ax.com>

My database says "switching transistor;" it's a TO-3 packaged power transistor, and I think it was used in a scope H.T. supply. Still in the box and sealed anti-static bag.
 I have 2 of them for anyone who will pay whatever a first-class padded envelope costs to send.

--
Gary Woods AKA K2AHC- PGP key on request, or at home.earthlink.net/~garygarlic
Zone 5/4 in upstate New York, 1420' elevation. NY WO G

From wwatson5 at sbcglobal.net Wed Oct 28 00:17:07 2015
From: wwatson5 at sbcglobal.net (William Watson)
Date: Wed, 28 Oct 2015 04:17:07 +0000 (UTC)
Subject: [BoatAnchors] Large lot of boatanchors for sale
References: <381979724.728206.1446005827365.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <381979724.728206.1446005827365.JavaMail.yahoo@mail.yahoo.com>

 I have 40 boatanchors, mostly medium to high-end (i.e., lots of tubes) that I would like to sell as a lot to someone who would bring a truck and come after them.? I am asking $5000 for the lot.? This is a truck load.? Some of these are in good working condition, but mostly they are good restoration candidates.? These are all HF general coverage receivers except for a couple of transmitters.? If you are interested in this lot, let me know and I will send you a list.? I am located in Edmond, Oklahoma.
Thanks
Joe WatsonW5WBR

From wb3fau55 at neo.rr.com Wed Oct 28 05:47:19 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Wed, 28 Oct 2015 5:47:19 -0400

Subject: [BoatAnchors] Large lot of boatanchors for sale
In-Reply-To: <381979724.728206.1446005827365.JavaMail.yahoo@mail.yahoo.com>
Message-ID: <20151028094720.8Q829.190722.root@cdptpa-web07>

Joe, please send the list-thanks Russ.
---- William Watson via BoatAnchors <boatanchors at theporch.com> wrote:
> I have 40 boatanchors, mostly medium to high-end (i.e., lots of tubes) that I
would like to sell as a lot to someone who would bring a truck and come after
them.? I am asking $5000 for the lot.? This is a truck load.? Some of these are in
good working condition, but mostly they are good restoration candidates.? These
are all HF general coverage receivers except for a couple of transmitters.? If you
are interested in this lot, let me know and I will send you a list.? I am located
in Edmond, Oklahoma.
Thanks
Joe WatsonW5WBR
____
BoatAnchors mailing list
BoatAnchors at theporch.com
https://minime.theporch.com/mailman/listinfo/boatanchors

From navy.radio at gmail.com Fri Oct 30 12:50:09 2015
From: navy.radio at gmail.com (Nick England)
Date: Fri, 30 Oct 2015 12:50:09 -0400
Subject: [BoatAnchors] tubes, test gear,
     some milsurplus - estate - Minerva OH
In-Reply-To: <CAB55hNdcGwNwoGHkKN=YfzDEsyPuOMZKfg_o=G0bUmo7adnFwQ@mail.gmail.com>
References: <CAB55hNdcGwNwoGHkKN=YfzDEsyPuOMZKfg_o=G0bUmo7adnFwQ@mail.gmail.com>
Message-ID: <CAB55hNeiBMH5Ydu4y4p_rtRG24++0yjvAJNqyX03iiXe5Nfv7Q@mail.gmail.com>

He has just added a lot more photos including additional gear and parts
https://www.dropbox.com/sh/k3cgzz9281r4tup/AACHRjYImCDsrcL0EMvhRBQSa?dl=0

Nick England K4NYW
www.navy-radio.com

On Sat, Oct 24, 2015 at 1:10 PM, Nick England <navy.radio at gmail.com> wrote:

> Pick up in Minerva OH
>
>
> Michael Zawaski <westmontinc at gmail.com> is cleaning out his
> father-in-law's estate.
>
> He'd be very happy if someone just gave him a lump sum and took it all away

>
> Looks like lots of test gear, tubes, some radar, some milsurplus stuff
>
>
> Lab Equipment
> https://www.dropbox.com/sh/eihqgymjo3zu6rz/AADz_IQveEghhak9qC8fJ4O_a?dl=0
> Vacuum tubes
> https://www.dropbox.com/sh/99t86v1ryjqda72/AABX_g4tk7AP3ZAsS-U_7_S1a?dl=0
>

From johnmb at nc.rr.com Fri Oct 30 17:51:34 2015
From: johnmb at nc.rr.com (john)
Date: Fri, 30 Oct 2015 17:51:34 -0400
Subject: [BoatAnchors] tubes, test gear,
 some milsurplus - estate - Minerva OH
In-Reply-To: <CAB55hNeiBMH5Ydu4y4p_rtRG24++0yjvAJNqyX03iiXe5Nfv7Q@mail.gmail.com>
References: <CAB55hNdcGwNwoGHkKN=YfzDEsyPuOMZKfg_o=G0bUmo7adnFwQ@mail.gmail.com>
 <CAB55hNeiBMH5Ydu4y4p_rtRG24++0yjvAJNqyX03iiXe5Nfv7Q@mail.gmail.com>
Message-ID: <5633E666.6080900@nc.rr.com>

Man, what a load of neat stuff. crime detection kits, blasting caps,
deco AB ashtrays, ... I sure would have liked to have known this gentleman.

73
John K5MO

On 10/30/2015 12:50 PM, Nick England via BoatAnchors wrote:
> He has just added a lot more photos including additional gear and parts
> https://www.dropbox.com/sh/k3cgzz9281r4tup/AACHRjYImCDsrcL0EMvhRBQSa?dl=0
>
>
> Nick England K4NYW
> www.navy-radio.com
>
> On Sat, Oct 24, 2015 at 1:10 PM, Nick England <navy.radio at gmail.com> wrote:
>
>> Pick up in Minerva OH
>>
>>
>> Michael Zawaski <westmontinc at gmail.com> is cleaning out his
>> father-in-law's estate.
>>
>> He'd be very happy if someone just gave him a lump sum and took it all away
>>
>> Looks like lots of test gear, tubes, some radar, some milsurplus stuff
>>

>>
>> Lab Equipment
>> https://www.dropbox.com/sh/eihqgymjo3zu6rz/AADz_IQveEghhak9qC8fJ4O_a?dl=0
>> Vacuum tubes
>> https://www.dropbox.com/sh/99t86v1ryjqda72/AABX_g4tk7AP3ZAsS-U_7_S1a?dl=0
>>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> https://minime.theporch.com/mailman/listinfo/boatanchors
>

--
III

From arc5 at ix.netcom.com Sat Oct 31 08:09:20 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 31 Oct 2015 07:09:20 -0500
Subject: [BoatAnchors] For Halloween: "The Long Nights of Uncle Tom"
Message-ID: <7ACE67ACA9D54BCCB3AFB462D96C7506@DaddyPC>

Happy Halloween, all.
Good time to share a "spooky radio story" from November
of 1970.   I was a boy: 13 years old in Shreveport, LA.
Each month I would save my pennies and walk the 2 miles
from my house to the "Pak-a-Sak" store to buy the new
edition of "Electronics Illustrated." Loved that mag, which
helped set me "on the path." Most of you probably remember
"Uncle Tom" Kneitel, the writer who just about made every
issue for me.

"Uncle Tom" took a bet and did some investigation of
the "Oujia Board," publishing his results in a piece called
"The Long Nights of Uncle Tom."   He heard about that
for decades, many people swearing he was going to get
a "QSL card from Satan" and others accused him of a hoax.
He never wavered and said it was the straight-forward
truth of what happened. I'll leave it to you to decide.

In honor of All Hallow's Eve,
"The Long Nights of Uncle Tom," November 1970

http://home.netcom.com/~arc5/Electronics-Illustrated-1970-11.pdf

From ranickel at comcast.net Sat Oct 31 14:13:55 2015
From: ranickel at comcast.net (Robert Nickels)

Date: Sat, 31 Oct 2015 13:13:55 -0500
Subject: [BoatAnchors] For Halloween: "The Long Nights of Uncle Tom"
In-Reply-To: <7ACE67ACA9D54BCCB3AFB462D96C7506@DaddyPC>
References: <7ACE67ACA9D54BCCB3AFB462D96C7506@DaddyPC>
Message-ID: <563504E3.9020702@comcast.net>

On 10/31/2015 7:09 AM, David Stinson via BoatAnchors wrote:
> "Uncle Tom" Kneitel, the writer who just about made every issue for me.

I still recall reading what seemed to my adolescent brain the epitome of
brilliance in the EI Letters to the Editor column:

"Uncle Tom - people write to you with serious questions, how do you give
those smart-alec answers?"

To which Tom replied:

"On a Royal portable".

73, Bob W9RAN

From arc5 at ix.netcom.com Sat Oct 31 14:20:51 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 31 Oct 2015 13:20:51 -0500
Subject: [BoatAnchors] Trouble Shooting Tip: HQ-170 Bad IF
Message-ID: <FDC546C459074615BCC548CE8E39464D@DaddyPC>

My estate-find Hammarlund HQ-170 rolled-over on me
last week. No signals, S-meter pegged low.
Finally got a chance to look at it. Since the S-meter pegged
is an indication of problems around the AVC line, I measure
the voltage at the AVC rectifier and YEOW! 250V B+
on the AVC line.   I started tracing and isolating branches
of the AVC line until I isolated it to the 1st 455 KC IF stage,
V-4.   The B+ on the primary winding was leaking to
the secondary, putting the B+ on the AVC.
Here's a diagram. B+ line in Red, AVC in Green.

http://home.netcom.com/~arc5/HQ170IF.jpg

I do have a replacement transformer, but I'll have to
go mining in "The Cave" to find it. In the mean time,
I wanted to know the rest of the rig was OK.
I learned a trick from one of my Elmers and from
My Hero, Scotty of Star Trek: Bypassing.
I disconnected the transformer primary and provided
B+ to the Converter via a 2200 Ohm plate load

resistor, then coupled the signal via 150 pFd capactor
to the top of the secondary. Bypass in blue:

http://home.netcom.com/~arc5/HQ170IFBP.jpg

The radio is now playing and sounds as good as ever.
There is of course some minor lose of selectivity and
alignment will need touch-up, but from a practical
standpoint I can't really tell any difference.
I will replace the IF can.... eventually. ;-)

GL OM ES 73 DE Dave AB5S

From arc5 at ix.netcom.com Sat Oct 31 14:27:04 2015
From: arc5 at ix.netcom.com (David Stinson)
Date: Sat, 31 Oct 2015 13:27:04 -0500
Subject: [BoatAnchors] For Halloween: "The Long Nights of Uncle Tom"
In-Reply-To: <563504E3.9020702@comcast.net>
References: <7ACE67ACA9D54BCCB3AFB462D96C7506@DaddyPC>
 <563504E3.9020702@comcast.net>
Message-ID: <169942D588DC4CBC97CD7D6E06DC7D93@DaddyPC>

----- Original Message -----
From: "Robert Nickels via BoatAnchors" <boatanchors at theporch.com>

> I still recall reading what seemed to my adolescent brain the
> epitome of brilliance in the EI Letters to the Editor column:
>
> "Uncle Tom - people write to you with serious questions, how do
> you give those smart-alec answers?"
>
> To which Tom replied:
>
> "On a Royal portable".

One of my favorites is from the same 11-70 issue:

"Uncle Tom, why do so many people put you down?"
"It's my size; I'm too hard to pick up."

From k7sz at live.com Sat Oct 31 14:30:43 2015
From: k7sz at live.com (Rich Arland)
Date: Sat, 31 Oct 2015 18:30:43 +0000
Subject: [BoatAnchors] For Halloween: Faded memories of Uncle Tom Kneitel de WPE7BYR
In-Reply-To: <563504E3.9020702@comcast.net>
References: <7ACE67ACA9D54BCCB3AFB462D96C7506@DaddyPC>, <563504E3.9020702@comcast.net>
Message-ID: <DM3PR12MB08747AA748D9755D45861A5DF62E0@DM3PR12MB0874.namprd12.prod.outlook.com>

From: BoatAnchors <boatanchors-bounces at theporch.com> on behalf of Robert Nickels via BoatAnchors <boatanchors at theporch.com>
Sent: Saturday, October 31, 2015 2:13 PM
To: boatanchors at theporch.com
Cc: Robert Nickels

Uncle Tommy was a VERY prolific author. In actuality he would often write an entire issue of Electronics Illustrated by himself if he didn't have enough articles coming in from other authors to fill the issue! He was a very accomplished tech-head. He was a member of the "Old Crows" the fraternity of the electronics intelligence gathering community. Toward the end of his lifetime he was living in a skilled nursing care facility. In addition to all that Electronics Illustrated stuff he also was instrumental in starting up the "WPE" monitoring program. His WPE call was WPE2AB, refusing to take the "AA" call for some obscure reason. He was a "crusty old phart", to put it bluntly. When Popular Communications was re-started in the early 1980s he was the first editor and you would often find some of his old Electronics Illustrated articles "recycled" within the pages of the new Pop Comm.

David: I didn't realize you were that young!!! (possibly because I am that OLD!!)

Vy 73 to all and next to Uncle Tom's "Long Nights" story, I seem to remember his fascination with Swan Island and the anti-Castro broadcasts theoretically originating from that general vicinity.

Rich Arland K7SZ
WPE7BYE

From wb3fau55 at neo.rr.com Sat Oct 31 14:52:46 2015
From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)
Date: Sat, 31 Oct 2015 14:52:46 -0400
Subject: [BoatAnchors] Trouble Shooting Tip: HQ-170 Bad IF
In-Reply-To: <FDC546C459074615BCC548CE8E39464D@DaddyPC>

Message-ID: <20151031185246.GLDPT.242546.root@cdptpa-web07>

Dave,is is a real common problem in HQ-170s. The 2nd can often goes bad too, so
consider changing bothcans. Hers what goes wrong, the caps in the can are
made as part of the base. Easiest fix is to just change the can. Some of the
60kc cans also go bad. Heres where surgery is needed. Not often can you find a
60 kc IF can. You would need a new base and replace the caps. Well have fun!
73s Russ.
---- David Stinson via BoatAnchors <boatanchors at theporch.com> wrote:
> My estate-find Hammarlund HQ-170 rolled-over on me
> last week. No signals, S-meter pegged low.
> Finally got a chance to look at it. Since the S-meter pegged
> is an indication of problems around the AVC line, I measure
> the voltage at the AVC rectifier and YEOW! 250V B+
> on the AVC line. I started tracing and isolating branches
> of the AVC line until I isolated it to the 1st 455 KC IF stage,
> V-4. The B+ on the primary winding was leaking to
> the secondary, putting the B+ on the AVC.
> Here's a diagram. B+ line in Red, AVC in Green.
>
> http://home.netcom.com/~arc5/HQ170IF.jpg
>
> I do have a replacement transformer, but I'll have to
> go mining in "The Cave" to find it. In the mean time,
> I wanted to know the rest of the rig was OK.
> I learned a trick from one of my Elmers and from
> My Hero, Scotty of Star Trek: Bypassing.
> I disconnected the transformer primary and provided
> B+ to the Converter via a 2200 Ohm plate load
> resistor, then coupled the signal via 150 pFd capactor
> to the top of the secondary. Bypass in blue:
>
> http://home.netcom.com/~arc5/HQ170IFBP.jpg
>
> The radio is now playing and sounds as good as ever.
> There is of course some minor lose of selectivity and
> alignment will need touch-up, but from a practical
> standpoint I can't really tell any difference.
> I will replace the IF can.... eventually. ;-)
>
> GL OM ES 73 DE Dave AB5S
>
>
>
>
> ____
> BoatAnchors mailing list
> BoatAnchors at theporch.com

> https://minime.theporch.com/mailman/listinfo/boatanchors

From tbryan at nova.org Sat Oct 31 22:18:17 2015
From: tbryan at nova.org (Tom B)
Date: Sat, 31 Oct 2015 22:18:17 -0400
Subject: [BoatAnchors] KWM-1 capacitors
Message-ID: <56357669.4000100@nova.org>

Hello All,

I just started working on a Collins KWM-1. I see there are a bunch of bumblebee caps in it. There are also some Sprauge electrolytics that might be a problem.
I assume the collective wisdom here is to replace them all.
So, what is the recommended replacement?
And, anybody that has already done this have a replacement cap list made up that they can share?

Any other tips on getting this thing going would be helpful.

Tom Bryan
N3AJA